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ABSTRACT

As the second of 2 volumes reporting research on the social and educational development of 10 rural school districts prior to their involvement in the Experimental Schools program, this book is concerned with the impact of history on comprehensive educational improvement. Presenting 4 of the 10 histories, this volume includes: South Umpqua, Oregon; Lead-Deadwood, South Dakota; Quilcene-Brinnon, Washington; School District No. 2, Carbon County, Wyoming; and two chapters titled "Overview of the Ten Rural Communities" and "Placing the Findings into Perspective". Although prepared in the context of a 5-year longitudinal study, these histories constitute a separate body of knowledge relative to the following objectives: to provide concise yet comprehensive histories of communities; to gain information on economic, ecological, social, cultural, political, and psychological factors shaping present-day characteristics and to determine why these communities are as they are today; to identify ways in which rural communities may differ from both urban communities and each other; to ascertain via comparative analysis whether there are development process patterns; to determine whether the development patterns and/or present-day characteristics correspond to those of rural America in general; to render history an independent research variable by identifying community variations for future investment projects. (JC)

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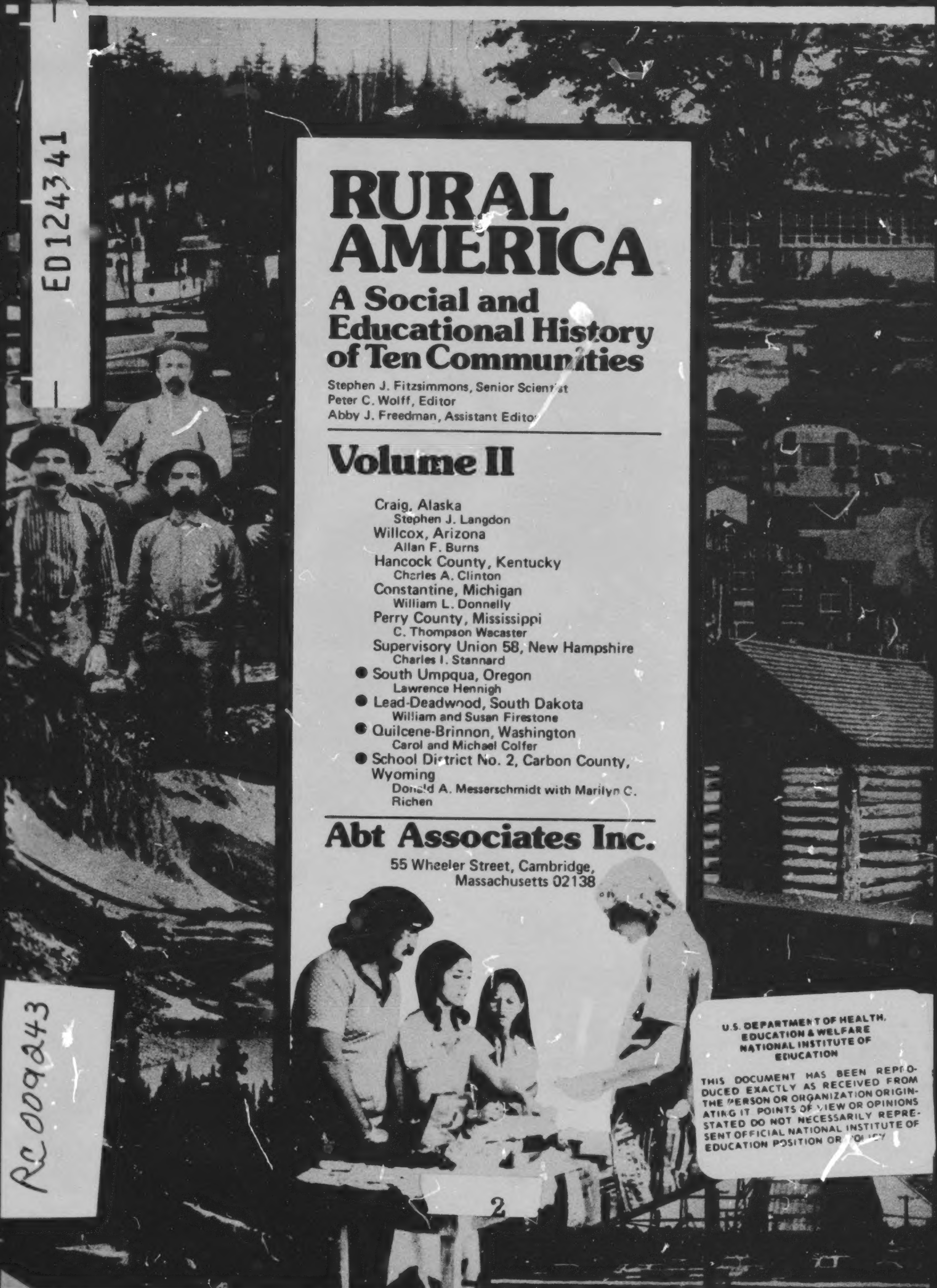

# RURAL AMERICA

## A Social and Educational History of Ten Communities

Stephen J. Fitzsimmons, Senior Scientist
Peter C. Wolff, Editor
Abby J. Freedman, Assistant Editor

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## Volume II

- Craig, Alaska
  - Stephen J. Langdon
- Willcox, Arizona
  - Allan F. Burns
- Hancock County, Kentucky
  - Charles A. Clinton
- Constantine, Michigan
  - William L. Donnelly
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  - Carol and Michael Colfer
- ● School District No. 2, Carbon County, Wyoming
  - Donald A. Messerschmidt with Marilyn C. Richen

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# RURAL AMERICA

## A Social and Educational History of Ten Communities

Volume II

Stephen J. Fitzsimmons, Senior Scientist
Peter C. Wolff, Editor
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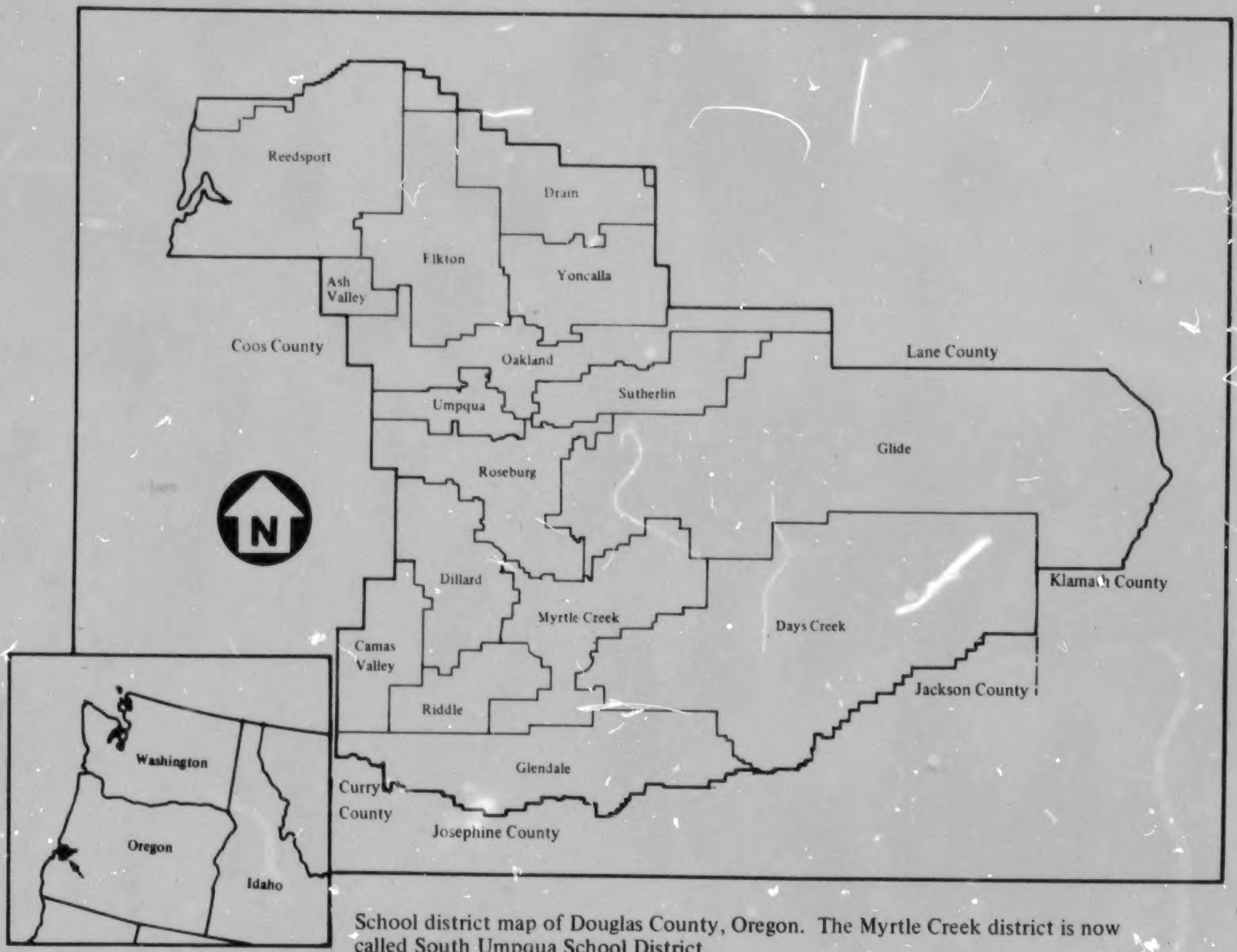
# A Social and Educational History of South Umpqua School District

by

Lawrence Hennigh


Reedsport
Drain
Elkton
Yoncalla
Ash Valley
Coos County
Oakland
Sutherlin
Umpqua
Lane County
Glide
Roseburg
Dillard
Myrtle Creek
Days Creek
Klamath County
Camas Valley
Riddle
Jackson County
Glendale
Curry County
Josephine County
N
Washington
Oregon
Idaho

School district map of Douglas County, Oregon. The Myrtle Creek district is now called South Umpqua School District.

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# A Social and Educational History of
# South Umpqua School District

Area: 340 square miles. Population (1970): 8,038. Elevation: 639 feet above sea level (Myrtle Creek), 747 feet (Canyonville), 3,338 feet (Canyon Mountain). The school district is located approximately at latitude 43° North and at longitude 123°30' West in southern Douglas County in southwest Oregon. Eugene, Oregon lies 90 miles to the north and Medford, Oregon lies 90 miles to the south. Major towns are Canyonville (founded 1851; incorporated 1858), Tri-City (unincorporated), Myrtle Creek (founded 1853), and North and South Myrtle.

## INTRODUCTION

South Umpqua School District 19C is located in southern Douglas County in southwest Oregon. The school district, in the heart of rugged mountainous country, includes Canyon Mountain with an elevation of 3,388 feet; at the other extreme, the elevation of Canyonville and Myrtle Creek, two of the settlements in the district, is 747 and 639 feet above sea level, respectively. The district is bisected by Interstate 5, the state's major north-south freeway. It is sometimes easier to get to the county seat of Roseburg, 20 miles to the north on Interstate 5, than to drive from one point to another on secondary roads within the district. The major population centers of Eugene, 90 miles to the north, and Medford, the same distance to the south, are each a comfortable hour and a half drive away on "I-5." But the Pacific Ocean, although only 40 miles to the west, also requires an hour and a half trip, on scenic but twisting road.

The school district began its official history in 1855, when the territorial legislature took over responsibility for education from community owned tuition schools. At that time, District 19 was responsible only for the brand new hamlet of Myrtle Creek, which was being built along the high ground overlooking the South Umpqua River. With population shifts and the eventual coming of the automobile, a series of consolidations

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took place between 1928 and 1964, so that the district now covers 340 square miles with a population of 8,038 reported in the 1970 census.

Geographically, District 19C covers about 2/3 of South Umpqua Valley, the area drained by North Myrtle and South Myrtle Creeks, plus some of the South Umpqua River basin. The district's Title III preschool program also includes the district of Riddle in the South Umpqua Valley and the Tiller-Drew district farther up the South Umpqua.

Historically, the district is made up of four communities with quite different settlement patterns. Canyonville, at the southern corner, was the first community in the area; it was founded in 1851 and incorporated in 1858. Tri-City, seven miles to the north, is an unincorporated community which began developing after World War II on rich farmlands known until then as Missouri Bottoms. Myrtle Creek, five miles farther north, was founded about 1853 and has since grown into the largest city in south Douglas County. North and South Myrtle, now one voting district, constitute a fourth community. They once included a number of small hamlets of the combined-store-and-post-office type with nearby one-room schools. Like many off-the-beaten-track communities in Oregon, these villages disappeared

TABLE 1

Population Change 1900 - 1970
in Myrtle Creek and Canyonville

| | 1900 | 1910 | 1920 | 1930 | 1940 | 1950 | 1960 | 1970 |
|---|---|---|---|---|---|---|---|---|
| Myrtle Creek | 189 | 429 | 385 | 401 | 441 | 1,781 | 2,231 | 2,755 |
| Canyonville | 193 | 149 | 156 | 167 | 255 | 861 | 1,089 | 1,020 |

Source: Douglas County Planning Commission.

without leaving a trace. However, with the recent trend toward rural living, the population of North and South Myrtle has been rapidly expanding again, while Myrtle Creek remains their source of employment and commerce.

Politically, the district is divided into four voting precincts. In 1973, there were 3,614 registered voters in the district, divided as follows: 2,148 Democrats, 1,336 Republicans, and 130 Independents.

## BASIC GEOGRAPHY, GEOLOGY, AND ECOLOGY

The history of Oregon has been heavily influenced by the fact that most of the best farmland is found in the Willamette Valley in the northern part of the state. Further south is an area which has little continuous farmland and few navigable rivers; it is sparsely populated. There are few markets and little means of transportation for the products of its rich natural resources. This region begins 14 miles south of Eugene, where the Cascade Mountains to the east and the Coast Range to the west merge to form an amorphous mountain range, variously known as the Calapooia or the Siskiyous, which continues into California until the Sacramento River again splits it into the Sierra and Coast Ranges. To the west of this region is the Pacific Ocean, and to the east are the Oregon and Nevada deserts. Because of its isolation and unique geographic characteristics, this region has long been recognized as a separate geohistorical unit from the more populous areas of either California or Oregon (Walling, 1884; Sutton, 1965; South Oregon Library Federation, 1971, back cover); in fact, this area is sometimes referred to as the "State of Jefferson."

The "State of Jefferson" is cut by three rivers which flow west: the Umpqua, the Rogue, and the Klamath. Although technically naviagable, these rivers contain much white water and have proven in practice to be barriers to communication. Along these rivers, especially upriver where the tributaries join, are a number of flat, rich valleys surrounded by precipitous hills. During the period of early settlement of the area, the Oregon-California stage route traversed these valleys. The larger valleys soon supported sizeable towns with mixed economies, while others supported only isolated stage stations.

Douglas County is the area within the "State of Jefferson" that is drained by the Umpqua River; its boundaries fit almost exactly the rim of the Umpqua River basin. Along the Umpqua and its tributaries are relatively flat lands. In the center of the county, where the Calapooia, North Umpqua, and South Umpqua Rivers and Cow Creek join, there is an almost continuous chain of fertile valleys in which most of the cities and almost all of the croplands of the county are located. When seen from a low flying airplane, the topography of Douglas County is like a series of

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bright green beads of irrigated pasture land surrounded by columns of forested peaks stretching as far as the eye can see in every direction. Fifty-one percent of Douglas County is the property of the U.S. government, managed by the Forest Service (DCPC, 1968, p.33).

The South Umpqua School District lies in the southernmost, heavily populated valley until the Rogue River watershed, about 45 miles further south. The South Umpqua Valley, like those around it, contains three sub-ecologies. Flat bottom land supports most of the farms, residences, and industries of the area. The south slopes of many of the mountains are the northernmost representatives of California meadowland, open grass with scattered oak and madrona. The third, but most dominant, feature is dense coniferous forest, reaching from the last point at which a plow can be used to the peaks of the mountains. The topography and climate of the area are sometimes compared to that of the Chuli Hills of Kenya, Africa. Lions, tigers, zebras, gazelles, and ostriches thrive on a nearby game farm.

Settlement of the area is largely confined to those parts of the flat land which are not subject to flooding and where there is dependable well water all months of the year. As a result, houses and trailers cluster in isolated spots such as Gazley, Klenke Lane, and Surprise Valley.

The ruggedness of the surrounding countryside has placed good flat land at a premium. Because of the difficult terrain, much of the forest was not exploited until after World War II, when the lumber boom made logging profitable in spite of the geography. The steep grasslands were good sheep pastures, but federal forest conservation laws restricted their expansion. Although the valley is said to have once been carpeted from edge to edge with prune orchards, today, rising taxes on orchard property have almost eliminated the prune industry, and the land is being converted to sheep pasture, housing, and industry. Housing and commerce have tended to locate in the South Umpqua Valley, while industry has located in the town of Riddle.

The natural beauty and mild climate of the area attract outdoorsmen, retired persons, and craftsmen seeking an attractive place to live. The building of old Highway 99 in 1922, the new Highway 99 in 1948, and Interstate 5 in 1965 made the area increasingly attractive to outsiders who desired the freedom of rural life, without the accompanying burden of cramped isolation. An increasing number of summer homes, as well as permanent residences, are being built near rivers and streams, often at a considerable distance from town. A six-story retirement home is located in Canyonville, and the town is also one turn-off point to Crater Lake National Park, 100 miles to the east.

Annual precipitation averages 40.67 inches with a distribution from 1.6 inches in June to 6.5 inches in December (DCPC, 1969, p. 9). The temperature averages about 60°F., with three months in which some snowfall is likely and five months overall in which temperatures of over 100°F. have been recorded during a 14-year period (DCPC, 1968, p. 11). Water in the South Umpqua River contains from 40 to 90 mg/l salts, ideal for domestic, industrial, or irrigation use (U.S. Geological Survey, 1969, p. 3).

Soil near the South Umpqua River and Cow Creek is listed as good cultivable land, with gentle slopes, moderately deep soil, and some protection against erosion. The soils immediately surrounding the district are listed as too steep for cultivation (DCPC, 1968, plate X). There seems to be little room for the expansion of agriculture.

Commercial hunting and fishing ended in the area in 1910, but sportsmen's take of deer, elk, pheasants, salmon, steelhead, and rainbow trout is so rewarding that interest in lesser game, such as quail and doves, has not yet developed. A small amount of commercial trapping for cougar, lynx, racoon, and coyote is still carried on.

Douglas County contains 25% of the virgin forest of Oregon, or 5% of the nation (Oregon Blue Book, 1973-74, p. 187). The world's only remaining major stand of virgin Douglas fir lies a few miles west of Myrtle Creek. The Douglas County Planning Commission, however, predicts a slow decline in employment in forest-related industry for the remainder of this century (DCPC, 1969, p. 37).

The area is highly mineralized. The nation's only major nickel mine and smeltery is three miles south of Riddle. Hanna Nickel Mine, which developed the deposit in 1954, employs about 500 workers, producing 25,000 pounds of ferroalloy per year on government contract (Oregon State Department of Geology and Mineral Industries, 1972, p. 61). Reserves are said to be sufficient through the year 1990. Cow Creek, Coffee Creek, North and South Myrtle Creeks, and Canyon Creek were all important gold producing areas during the 1850s. Small scale production continued until 1942, and recreational gold panning is still carried on. Copper, silver, chrome, and mercury were taken from small hard rock mines in the area until the mid-1950s (OSDGMI, 1972, p. 14). With the possible exception of gold mining, there is not much talk about expanding mining activities at present. While platinum, sulfur, asbestos, lead, and zinc have all been located in the area, it has been intensely prospected and few major new discoveries are anticipated. The Douglas County Planning Commission anticipates that further economic development of the area will be in light manufacturing and service industries (Gudger & Smith, 1972).

Major changes in the environment of the area have all been man-made. The Umpqua Indians practiced grass field burning in the process of harvesting tarweed seed. The result was that agricultural lands which now grow up in wild roses or blackberry thicket, if neglected, appeared to the first pioneers as vast ranges of deep grass, "like great wheat fields" (Riddle, 1953, p. 51). Oral accounts tell of pioneers losing their horses in the grass fields. A few patches of native wild grass can still be found, and it does grow taller than a man's head.

Man has changed the environment in more recent times as well. The smeltery in Riddle produces half the solid waste air pollution in the county. On foggy days the dark brown dust settles on cars in Riddle. However, on most days the surrounding hills are vividly clear, and at least some residents have come to the area to relieve asthmatic conditions.

Highway construction since World War II has increased gravel erosion into the streams. Although newcomers suppose the streams to have their original natural beauty, long-term residents talk about once deep fishing holes that are now filled with gravel. Expert opinion differs on the effect of clearcut logging on water runoff in relation to increased danger of floods and inadequate summer flow. The matter is being studied, and the problem is annually brought up in the state legislature.

An important change in the near future is likely to be federal construction of Days Creek Dam, seven miles up the South Umpqua River from Canyonville. Elimination of the threat of floods, such as those which occurred in 1894, 1927, 1955, and 1964 (DCPC, 1972, p. 1) would free 22,500 acres of flood endangered flatlands for further development.

The dam would also inundate 16 miles of now scenic valley (United States Army Engineers, 1971). Opinions differ as to whether this development would be desirable.

## EARLY SETTLEMENT IN THE AREA

By the treaty of 1818, Oregon country--composed of the present states of Oregon, Washington, Idaho, parts of Montana, Wyoming, and the Canadian province of British Columbia--was to be jointly administered by Great Britain and the United States. In practice, there was a three-way contest for control of the area among Britain, the United States, and the Indians until American annexation in 1850. South Umpqua played a peripheral role in this contest from 1818 until annexation.

The first recorded European appearance in South Umpqua was in 1818, when a Northwest Fur Company party of 60 men led by Alexander Ross entered the area in search of new opportunities for pelts. The natives were described as shy and peaceful, but so unresponsive to commercial interests that the British eventually opened fire out of frustration (Bakken, 1973, p. 5). This provocation was contrary to company policy and was deplored. The Indians could, however, when aroused, be extremely dangerous, as when the American fur expedition led by Jedediah Smith was massacred in 1828 (Carey, 1971, pp. 163-168). Because there was not a single Umpqua tribe, but rather semi-independent villages of prosperous hunting-fishing-gathering groups belonging to radically different langauge stocks (Bakken, 1973, p. 3; Beckham, 1971, p. 3), European retaliation was often aimed at the wrong group of Indians.

In 1836, the Hudson's Bay Company established a factory on the North Umpqua (Schlesser, 1973, p. 19). For the next 16 years this little band of British, French, Hawaiians, and Iroquois held the company's most southern post. While further penetration south was discouraged by a treaty with Spain which forbade Hudson's Bay expeditions into California, at least one company expedition did penetrate to the Sacramento Valley. Many years later, the route that this expedition took was used to plan a highway. Two other consequences of the company's presence in the area were the accommodation of the Indians to white man's presence, and the decrease in the Indian population as a result of introduced disease (Holmes, 1973, p. 16).

In 1837, a few of the American settlers who were scattered throughout the Willamette Valley decided they could not improve on their investment unless they could obtain livestock. Ten settlers went to California to buy cattle that were driven north to the American settlement.

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The northward drive apparently followed generally the same natural route taken earlier by the Hudson's Bay Company expedition. Detailed accounts of the drive emphasize the ruggedness of the terrain (Friedman, 1967, pp. 56-59).

When American missionaries arrived in Oregon country in the 1830s, they found it virtually a fiefdom of the Hudson's Bay Company. John McLaughlin, chief factor of the western division, administered law and controlled the economy with unquestioned fairness, but with equally unquestioned loyalty to British interests. The missionaries, most notably Marcus Whitman, returned east to promote vigorously American settlement for the area before it could be annexed by Great Britain. The appeal of abundant, rich farmland, free for the taking, was advanced so successfully that by 1845 "Oregon fever" had swept the nation, and 800 covered wagons crossed the plains. Ironically, the Hudson's Bay Company profited handsomely from the immigrant trade, by selling supplies and purchasing trailworn cattle at low prices.

In 1846, Jesse and Lindsay Applegate determined to locate a route safer than that which previously had crossed the Columbia River, and which was free from British control. The South Branch or Applegate Trail left the main trail at Fort Laramie, Wyoming, looped south through the Nevada desert, northern California, and then north to the Willamette Valley (Beckham, 1971, pp. 39-41). The first train to use the new route consisted of 100 wagons. The trip was so arduous that the territorial governor scolded the Applegates for the suffering they inflicted on the pioneers. Nevertheless, the California route came to bear more traffic than the famous northern branch of the Oregon Trail (Sutton, 1965, p. 30). The new route directly affected the settlement of Canyonville, which lay on the exact northern end of the most difficult stretch of the trail, the last 10 miles of the 30-mile-long Canyon Creek defile which sometimes took more than a month to traverse. Coming from the south, the valley of the Umpqua was the first area past hostile Indian country, a place where wagons could split up and every family could go its own way. It was also near the last point at which one could find open farming and grazing land where it was not necessary to clear forested land for settlement. Coming from the north, the advantages lay in the opposite direction: the first open land, and the last point before the dreaded canyon passage.

The first settlers were attracted by enormously generous Donation Land Laws signed by President Polk in 1850. Every white settler over 18 who was a United States citizen and a resident of the territory before 1850 received 320 acres if single and 640 if married. Settlers arriving between 1850 and 1855 received half as much. The land was free and was granted on the condition that it be lived upon for four years. Oregon country was the only place in the United States where land was free at that time; elsewhere, public land sold for $1.25 an acre. Free land was the lure and the reward for settlers to hold American claim to the area. That free land was indeed an attractive prize is seen by the intense pressure on daughters of immigrants to marry young, "their wedding gowns often being their first long dresses" (Bakken, 1970, pp. 13-14).

Farmers often sought out neighbors with whom they could get along rather than leave to chance who might move in close by them. Ranchers, on the other hand, sought out isolated valleys with abundant "open land"; that is, unclaimed grassland where their stock could graze undisturbed. One consequence of the settlement pattern was that the entire area was settled almost simultaneously. What are now some of the more remote areas, such as Tiller and Shoestring Valley, were among the first settled. Another consequence of the pattern was that wagon roads to these remote valleys eventually became county roads, then blacktopped rural routes. Thus, community growth was not dependent upon an "onion ring" pattern of new residences constructed close to town as roads were slowly expanded. There was instead a "spiderweb" pattern of homes constructed along a complex network of already existing rural roads.

The best account of these early settlers is left by George W. Riddle, who came in a wagon train from Illinois in 1851 as a boy of 12 (Riddle, 1953). The wagon train was made up of prosperous farmers who had been neighbors and who had planned the journey together. The various wagon trains assembled at Independence, Missouri, were called by their state of origin: the Iowa train, the Kentucky train, etc. At this point the wagon trains recruited stragglers who tended wealthier families' cattle in return for board. Once the wagon train had made it safely through the barrier of Canyon Creek Canyon, members scattered in search of suitable land, some going north to the Willamette Valley, than returning to settle locally. Land was chosen for fertility of soil, availability of water, security of claim, and physical beauty.

Farming was often combined with cottage industry. Riddle's father, for instance, supplemented his farm income by hammering out steel plows for sale. Lazarus Wright, whose farm covered the area of what is now Myrtle Creek, established a small up-and-down sawmill, cutting flooring for log cabins. This combination of farming and cottage industry was apparently a result of the free land act and continued for about a decade.

With so much free acreage, there were no land disputes and helpfulness was the order of the day. The poor were given the same hospitality as the rich, and sick Indians were cared for in the homes of settlers. Unpublished interviews with pioneers, conducted as a WPA project in 1938-39, confirm Riddle's interpretation. Indians are described as honest and moral; they neither stole property nor molested white women. (While French Canadian veterans of Hudson's Bay employment usually married Indian women, as did an occasional American eager to gain free land, mixed marriages were strongly discouraged, and halfbreeds were looked down on.) There was general agreement that there were shortages of everything and little means of raising funds for the purchase of even the simplest items; yet nothing had to be "nailed down" because theft was unheard of.

While money was scarce, wild game was abundant, so no one went hungry. Many of the settlers, however, had been prosperous farmers in the East, and they missed former staple items such as white bread and sugar. Frontier technology was used to produce some of the items which could not be purchased. Picks, rakes, pitchforks, and household utensils were methodically carved from wood. Water which had been percolated through wood ashes was substituted for lye in homemade soap. Salt produced at a farm near the present town of Sutherlin sold for $.50 a pound.

The settlers knew how to survive on a frontier because they had, in fact, come from pioneering families. A study of Oregon pioneers reveals that most of them had come as children to Illinois, Missouri, and the then western communities; their parents had pioneered in those places and the children came further west to Oregon. This included the Boone family, which traced its ancestry from Daniel Boone in Kentucky to Missouri and thence to Oregon. In spite of their similarities, the original settlers were as "different from each other as different suits in a deck of cards" (Davis, 1935, p. 2). They included prosperous farmers from Indiana, Illinois, Iowa, Missouri, and elsewhere, French Canadian trappers, Europeans who founded French Settlement and English Settlement near Roseburg, a legitimate German count who renounced his title after a tragic love affair, semiliterate country folk who herded others' cattle across the plains in return for keep, and Virginia aristocracy. Both Abraham Lincoln and Robert E. Lee had cousins in Canyonville (Clough, 1958, p. 9).

The character of southern Oregon was changed in 1851, when a party of local farmers going south to the California gold diggings made a major gold strike at Jacksonville, Oregon. The following year, the gold rush swept further north as new strikes were made at Althouse, Wolf Creek, and then the tributaries of Cow Creek and the South Umpqua itself. Soon hordes of miners were toiling on now isolated streams such as Coffee, Hogum, Humbug, Starveout, and Fizzleout Creeks. It is estimated that between 1851 and 1870, $18 million worth of gold was mined in southern Oregon (Oregon Blue Book, 1973-74, p. 299).

One result of this activity was an instant market for farm products. Flour and bacon were transported from the Willamette Valley through Canyonville for profitable sale at the diggings. Local farmers around Canyonville with less distance to transport their produce had an obvious advantage over the farmers of the Willamette Valley. There was also a market for clothing, coffee, tobacco, and whiskey, and new trade routes were explored. After unsuccessful attempts to blaze pack trails up the Klamath River and across the mountains from Coos Bay, a route was finally established from the port of Scottsburg, up the Umpqua, the South Umpqua, and the Applegate Trail to the mines (Sutton, 1965).

According to historian Sutton, the gold rush had a complex effect on the development of a sense of unity in the area. At first it was felt that the tax-rich area contributed far more to the coffers of Oregon and California than it received in benefits, and a movement to form a new territory got underway.[1] However, after depredation by the miners led to the Rogue River Indian wars of 1851-56, the critical need for federal troops postponed the secessionist movement. The war cost southern Oregonians

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[1] This separationist movement continued sporadically and with varying degress of seriousness until as recently as 1941 (Sutton, 1969, p. 109; SOLF, 1971, back cover).

$6 million, of which only half was reimbursed by the federal government. The hope of using the influence of the larger state of Oregon to pressure the government into paying the remainder kept southern counties physically within the state but with special interests for decades (Sutton, 1965).

All this activity did not greatly increase the farm population of the South Umpqua area, however. The generous apportionment of scarce good land meant that there was little room for investment by latecomers. Most of the miners had to settle elsewhere. This, plus the fact that miners and packers were often transient by nature, explains why the names of the earliest settlers, Weaver, Poole, Boyle, Blundell, Yokum, Nichols, etc., are still prominent in the communities.

It was often difficult to make business investment in the area successful, as the detailed account left by Herman Francis Reinhart shows (Nunis, 1962). Reinhart and his partners located a prospecting claim on a river bar at Althouse Creek, about 30 miles south of Canyonville, which paid $80 or $90 a day. They preferred the indoor life of commerce to mucking for gold in the rain, however, so they opened a combined saloon, bakery, and bowling emporium in 1853.

> We kept open day and night and Sundays and took in from $80 to $200 per day of 24 hours. We sold drinks at 25 cts, cigars 25 cts, pies $1, or $8 per dozen to wholesalers to retail at $1. Cider 25 cts, cards $1.50 per deck...but our expenses were high, for flour was $60 to $75 a hundred, sugar 50 to 60 cts per pound, butter 80 to 90 cts per pound, cigars $80 to $120 per thousand, syrup $1 to $1.50 per qt, lemons $3 to $6 per dozen, eggs $1.50 to $2 per dozen, salt, dried apples, and all in proportion (pp. 65-66).

Overseeing both mining property and retail business proved impossible. Reinhart's employees found it much too tempting to slip the profits into their own pockets. Reinhart then rented a wheat field that was ready to be harvested in Missouri Bottoms. He also ran a combination post house, toll ferry, and post office eight miles east of Roseburg, but "the postoffice business was a nuisance, and amounted to only five or six dollars per quarter year" (p. 158).

Reinhart variously tried ranching on the Pacific coast, prospecting in Canada, and mining in the Rocky Mountains. The appeal of economic security loomed large during terribly frustrating times, but the tedium of actually settling down overcame it. Eventually Reinhart cleared $7,000 profit on a packing enterprise in Colorado and counted himself a successful man (pp. 305-306).

Judging from the examples of Riddle and Reinhart, the miners and farmers seem to have accommodated to each other. Neither side viewed the other in strictly stereotypical fashion, and both admitted to making personal friends among those in the other group. Reinhart, for example, notes that Riddle's sister was rather attractive. Farmers and miners frequently switched their occupations from one to the other. Problems did arise, however. Riddle describes some of the miners as "exterminators" (Indian killers and trouble makers). Reinhart records having bought beef at high prices from a farmer, only to discover that he was eating dog food butchered from a sick cow. In recompense, he stole a pig from the next farm he passed.

These local interactions were occurring within the larger process of building a state. In 1850, Lane County was formed, including southwest Oregon as well as the southern Willamette Valley. By 1851, this arrangement was clearly impracticable due to increasing settlement in the far south. Douglas County was created, and Myrtle Creek and Canyonville were each authorized to elect a justice of the peace. Myrtle Creek was authorized one constable, Canyonville, two (Walling, 1884, p. 405).

The county officers were councilman, representative, probate judge, clerk, sheriff, treasurer, assessor, coroner, and county commissioner. The following election was warmly contested by several candidates for all offices except that of clerk. The total vote was 163. In the county elections held the following year, the number of ballots increased to 306 (Walling, 1884, p. 407).

Some indication of the economic and population growth of Douglas County during the first generation is given in Table 2, derived from Walling. The decline in per capita assessed valuation probably reflects an influx of relatively propertyless laborers and minor craftsmen into budding new towns.

TABLE 2

Economic and Population Growth of Douglas County: 1855-1883

| Year | Valuation | Population | Per Capita |
|---|---|---|---|
| 1855 | $ 908,456 | 587 | $1,547 |
| 1856 | 679,000 | -- | -- |
| 1857 | 454,796 | -- | -- |
| 1858 | 1,406,226 | -- | -- |
| 1859 | 1,570,690 | -- | -- |
| 1860 | 1,398,752 | 3,091 | 452 |
| 1870 | 1,454,933 | -- | -- |
| 1875 | 1,910,791 | 6,147 | 310 |
| 1883 | 3,087,564 | -- | -- |

Source: Walling, 1884.

Neighborhoods, such as Missouri Bottoms and Cow Creek (Riddle), functioned as towns for administrative, educational, social, and military purposes. During the Indian wars, miners to the south fled to towns for safety, and settlers to the north "forted up" at strategically located neighborhood farmhouses. When the Cow Creek band eventually elected to join the hostiles, detachments of volunteer mounted rifles were dispatched from Roseburg, Myrtle Creek, and Riddle in pursuit. These contingents fought as separate units at the battle of Olalla, where the Indians were heavily defeated (Nichols, WPA, 1938).

Given the generous land grant law, craftsmen and merchants often preferred to ply their trade from farms rather than villages. Some of these merchants saw the value of subdividing their farms into town plots. The most successful was Aaron Rose, who campaigned vigorously to have the county seat moved from nearby Winchester to his new village of Roseburg. Roseburg continued to function as the county seat after a measure to divide the county failed to pass in a special election of 1868.

Another example of a farm which became a town is Canyonville, which began in 1851 when James Knott opened a highly successful store on his land claim, catering to miners and packers. Scattered references, dating before 1853, mention a well-kept hotel, a rooming house, a blacksmith shop, a gristmill, and a distillery. The town was platted in 1858 "and has since grown steadily" (Walling, 1884, p. 425). Like other towns in the area, it was carefully planned. Today, it is blessed with wide straight streets and plenty of parking space because the owner saw the real estate advantage of making generous land donations to the town being built around his hotel. Donations of land for schools and churches also made surrounding real estate more valuable.

The site of Myrtle Creek was purchased by Lazarus Wright, a successful gold miner, in 1852. By 1858, Wright was operating a hotel, a sawmill, a general store, and a post office on his property. The venture nevertheless failed, and the land changed hands several times before it was finally platted by John Hall in 1865. References suggest that only by the greatest effort and frugality was Hall able to make his investment a success (Carter, 1967, pp. 12-17).

There were only sporadic attempts at public education in Oregon before the state's admission to the Union in 1859 (Holy, 1950, p. 4). The first school in South Umpqua Valley is believed to have been started by a Mrs. Vandenbosch, a well educated member of a wealthy family, who taught in her home without pay (Cornutt, 1971, p. 39). The first publicly supported school in Canyonville is believed to have been built in 1852 at the encouragement of Isaac Boyle, who also ran the first hotel in that village and operated a distillery (Montgomery, WPA, 1939). The school, known as Canyonville Academy, burned down a few years later but was replaced by what was then considered to be one of the more modern school buildings in the county because it had a foundation.

The first school in Myrtle Creek, a one-room shiplap building, is believed to have opened in 1854 "at the edge of the Adams property." This would place it near the present city boundary. About 30 students were enrolled the first year. Tuition was $1.50 per student; the fee paid for the teacher's salary. Pioneer students recall idly gazing at the outside world through cracks in the walls. One recalls a tobacco chewing teacher who used a gap in the floor as his spitoon. This building served as the schoolhouse until a more substantial one was constructed in 1864.

The first secondary school in the county was the still thriving Umpqua Academy (sometimes called Wilbur Academy) at Wilbur, near the county seat. It began as a Methodist finishing school in 1854. Riddle recalls receiving his entire formal education--one three-month term--at this institution.

Although the territorial legislature had initiated the public school system in 1853, the only effect in Douglas County seems to have been the election of a county commissioner at a wage of $400 per year. Garden Valley is reported to be the first school in the county to receive tax support (Stuart & Stuart, 1961, p. 51). The earliest county records located show that in 1855 the county paid Alhbens Trelarral $85.76 for educating 32 students in Myrtle Creek. This salary was about average for the county.

The WPA interviews with pioneers are helpful in characterizing this early education. The school year lasted three months, usually February through April. Teachers received from $90 to $120 a year plus room and board; parents took turns boarding teachers. Teacher turnover was high. Books and slates were purchased by the families of the students. Curriculum was "readin', ritin', 'rithmetic, and sometimes a little geography" (West, WPA, 1938). Teachers were consistently remembered in terms of how often they used the rod, a not irrelevant detail, as those interviewed spontaneously remark again and again that if a student got a licking in school, he got another when he got home. Students usually took their punishment manfully, but if provoked beyond endurance, they sometimes beat up the teacher or alternatively put a tack on his chair. For all its resemblance to something out of Tom Sawyer, schooling was remembered as a positive experience. Children were said to have wanted to go to school, even though chores were not reduced during the academic year. Several early settlers remarked on the sacrifices students made to get an education.

Newspapers also began early in the history of the settlement of the county. The county's first newspaper, the Umpqua Gazette, was published at Scottsburg, on the coast, in 1854. The first newspaper in Roseburg, the Roseburg Express, was printed November 17, 1859. It supported the Democratic party and ceased publication after the following year's election.

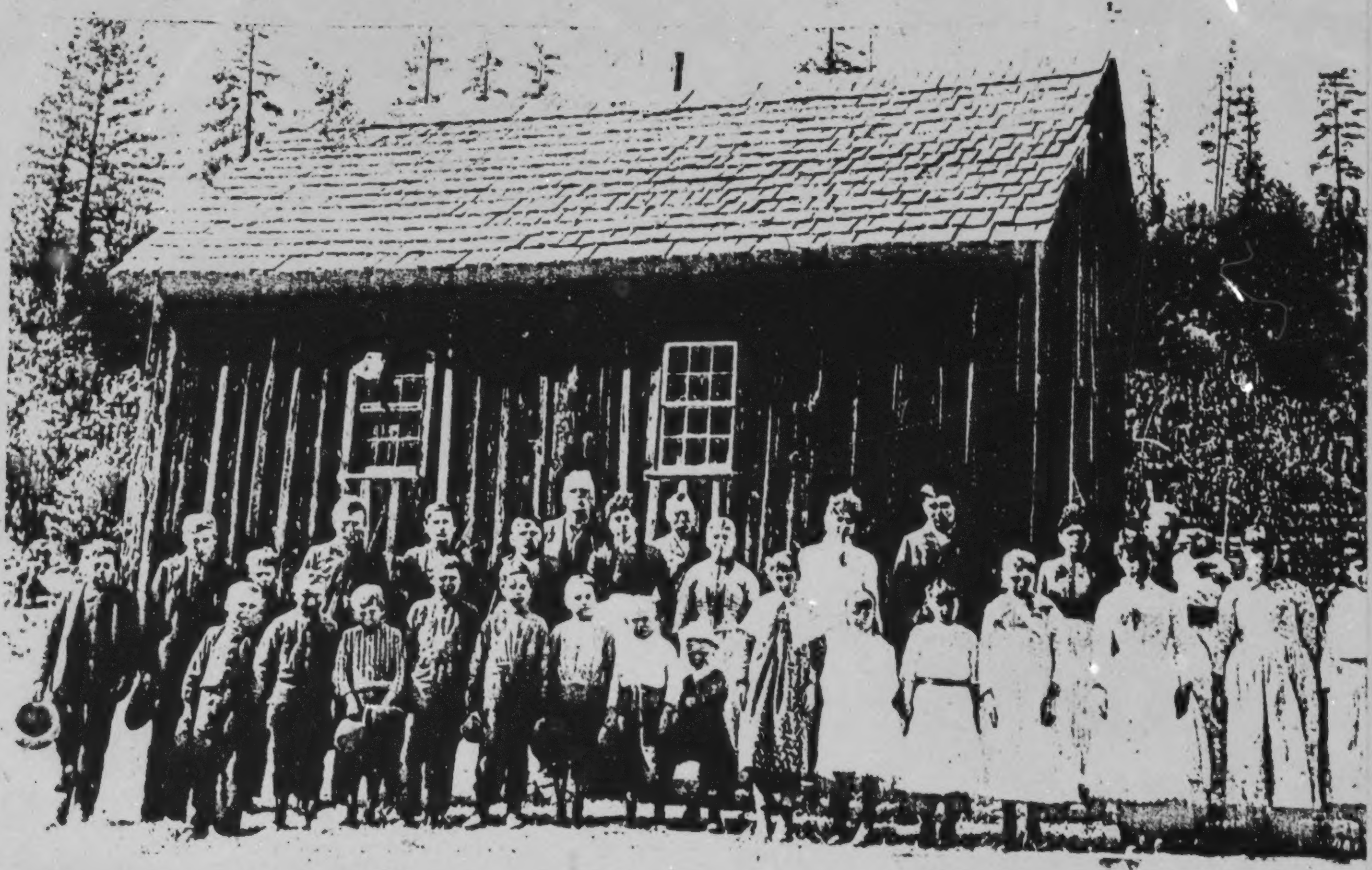

Fig. 1. Teacher William Treat, class and school. The first school in Myrtle Creek.

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Communication was made easier during the late 1850s, when Joseph Hooker (the "Fighting Joe" Hooker of Civil War fame) engineered a military highway across Canyon Creek Canyon. The first regular stagecoach operations between Portland and Sacramento began in 1860. The resulting shift in trade led to rapid decline of communities near the mouth of the Umpqua, but Myrtle Creek and Canyonville gained from increased commerce and regular mail service.

As communications developed, Oregon became increasingly affected by political events in the rest of the United States. Its entrance into the Union was delayed until 1859, partly because of heated debate over the slave question. In a special election in 1857, Oregonians voted decisively against legalized slavery. On the same ballot, however, they voted to exclude free Negroes and mulattos from the territory. The vote in Douglas County was Slavery: 248 yes, 377 no; Free Negroes: 23 yes, 560 no (Cary, 1971, p. 512).

Oregon affected the politics of the nation as well. The proxy vote of the Oregon Republican party, given to Horace Greeley, was a major influence in making Abraham Lincoln a candidate for the presidency. Joseph Lane of Roseburg ran as the vice-presidential candidate on the pro-slavery Breckinridge branch of the splintered Democratic party.

The Civil War increased military commerce along the new road and provided a market for hay and other local products. The telegraph line between Portland and Sacramento which passed through South Umpqua in 1863 was another effect of the war. Today, the only local reminders of that war are place names such as Union Creek, Confederate Gulch, and Grants Pass.

The end of the war saw a major shift in the local economy. Gold strikes in Idaho and British Columbia lured away the free spending miners, who were replaced by frugal Chinese. Federal troops and payrolls had left the area in 1857, when the Indians were moved to the Siletz Reservation on the coast. While farmers in the Willamette Valley had once transported flour past the Canyonville gristmills on their way to the mines, farmers in South Umpqua were now transporting hams through 100 miles of some of the richest farmland in the nation to their major market at Portland, Oregon.

Many accounts, both of living residents and of WPA recorded reminiscences of the pioneers, recall the abundance of food in the old days, and both the scarcity of money and the need for it. Hogs were released every spring to forage for themselves, then rounded up at great personal risk in the fall. Large flocks of turkeys were driven 10 or more miles into the hills to forage on grasshoppers during the summer, then herded back to glean over the mown wheat fields in the fall. Wheat which could not be exported was sold to the local gristmills which kept a percentage of the grain for payment, fed the grain to hogs and exported hams.

Minor sources of income and a genius for improvisation prevented real hardships. Canyonville became noted for its buckskin pouches and other handicrafts, and representatives of Eastern glove manufacturers annually toured the area to purchase deer skins. Deer hides brought $1.50 each, and a professional hunter or "pelter," as he was known locally, could kill enough animals in a season to support his family for a year. Venison jerky sold well in Portland, and, when demand outran supply, goat jerky was sold as venison. Some people worked gold mines at least seasonally or "pocket hunted" for isolated deposits. Cattle and sheep were a continuing source of income. Silver salmon runs provided brief seasonal employment.

Few families were moving into the area during those years, and everybody was becoming related to everybody. Reminiscences of the pioneers repeatedly stress the value of the mutual helpfulness and generosity of that period. One family tapped local maple trees for enough sugar and syrup to supply the family, and "much was given away to neighbors who did not have any maple trees on their ranches" (West, WPA, 1938), though the western maple has a very low sugar content. One pelter recalled that he neither sold venison nor allowed it to spoil, but gave away "such as his own folk could not use because there were always plenty of people who could use it" (McLain, WPA, 1938). This would amount to gifts of thousands of pounds of meat per year. Several pioneers remarked that the best produce always remained within the community. Farmers cured their own hams and bacon, kept or gave away the choice joints, and sold the rest at low prices.

While the adjustments may have been satisfactory to most, merchants and promoters required economic growth. In 1870, when the steamboat Swan made its first and only trip up the Umpqua, the Roseburg weekly

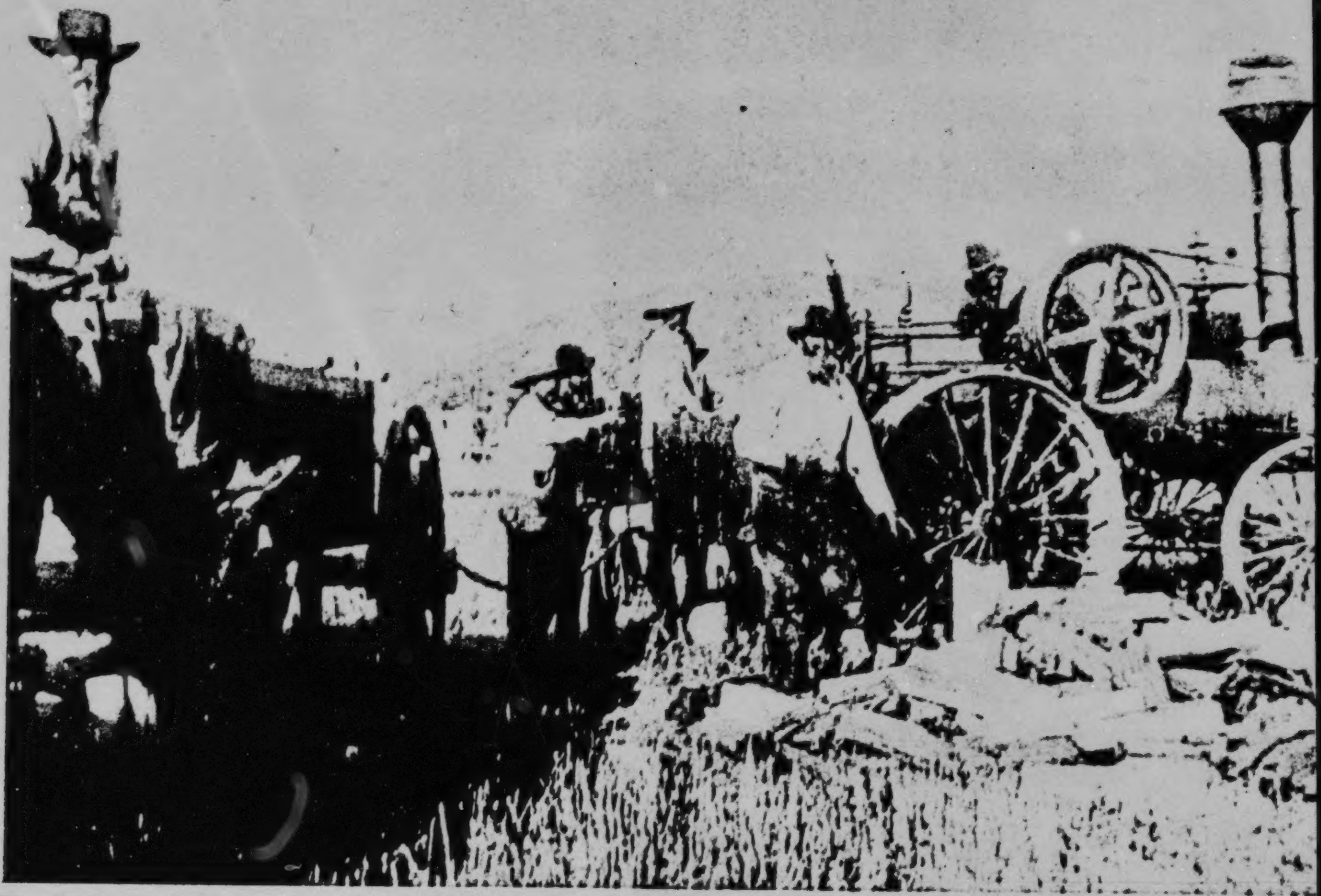

Fig. 2. Cornutt's steam tractor threshing near Riddle, 1895.

Ensign headlined: "TRANSPORTATION IS HERE: FARMERS GROW WHEAT." The railroad offered another form of transportation for wheat. In 1872, rail lines were built as far south as Roseburg, where financial problems halted construction. While the Roseburg area is remembered as coming to look like one continuous wheat field, South Umpqua remained a mixed economy. By the time the traditional gold spike was finally driven in December 17, 1887, the wheat growing era was past, and a new economic base was needed.

Walling (1884, pp. 417-437) gives a detailed picture of the area at about that time. Canyonville had two general stores, a grain warehouse, a drug store, a butcher shop, a wagon shop, a hotel, two feed stables, a blacksmith shop, a hardware and tin shop, and a cabinet shop. The gristmill had a daily capacity of 24 barrels of flour. The two nearby sawmills had annual capacities of 200,000 and 300,000 board feet, respectively. There was a Methodist church, a school house, and a chapel of the F&AM lodge. Myrtle Creek had two general stores, a gristmill with a capacity of 45 barrels per day, a planing mill, two blacksmith shops, a hotel, and a warehouse. The Good Templars lodge had 50 members. The nearby sawmill had a capacity of 5,000 feet daily. The newly constructed village of Riddle had two hotels, a general store, a steam mill, and a school house in which church services were also held.

When the railroad bypassed Canyonville in 1882, it rapidly declined in size. The number of saloons in the town is said to have dropped from eight to one.

ig.3. View of Canyonville, c. 1890.

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## GENERAL DEVELOPMENT OF THE AREA UNTIL THE 1960s

The development of the prune industry in the early 1890s changed the character of South Umpqua from a region based on a mixed economy to a region with an economy based upon a single industry. The change seems to have taken place within a few years. In 1884, Walling noted that "no one is especially interested in fruit growing" (p. 423). At about the same time, a man named Evans was touting the advantages of prune growing in the area, and he is said to have had considerable difficulty convincing farmers who had "never seen a prune tree in their lives" (Buick, WPA, 1938). The first dryer, built in Myrtle Creek, was used to dry apples until a crop could be brought in; it was also used as a dance hall. The first prune growers are reported to have been Missouri Bottom farmers, Hans and John Weaver, Henry Adams, Jake Chadwick, L. Hill, and John Hall, all original pioneer settlers (Buick, WPA, 1938). Charles Kirk, who arrived in 1889, recalls that there were only a few small prune orchards in the valley at the time, then the area went "prune wild." John Hall refused an offer of $1,000 per acre for his orchards, saying they netted him more than 10% over expenses, far more than he could earn by reinvesting the money elsewhere (WPA, 1939). The spread of prune orchards to California and Washington soon cut profits, but as late as the 1920s, a 134-acre ranch with house, barn, dryer, outhouse, and 20 acres of orchard was advertised for sale at $18,000 (Myrtle Creek Mail, June 23, 1922).

Holding to this one crop economy made sense if the alternatives were kept in mind. In the early 1890s, a "big fat cow" sold for $13.00, sheep sold for $1.00 to $1.25 per head, hogs, dressed, brought 3 to 3½ cents per pound. The top price for full grown chickens was $1.50 to $2.00 per dozen. Eggs sold for 8 to 10 cents per dozen. Butter was two pounds for a quarter. Wheat brought 50 cents per bushel delivered, hay in the field sold at $4.00 per ton, or $6.00 delivered (Wells, WPA, 1939).

By the early 1890s, the prune industry was so basic to the area that today some elderly residents assume it had always been there, or that it dated back to the Civil War. This industry was to establish the character of the communities of the area for two generations. Family orchards were of 15 to 40 acres, plus grazing lands and mixed farming for home consumption. Most farmers owned their own dryers. At the peak of the industry, farmers were grossing $250 to $400 per acre for their crops.

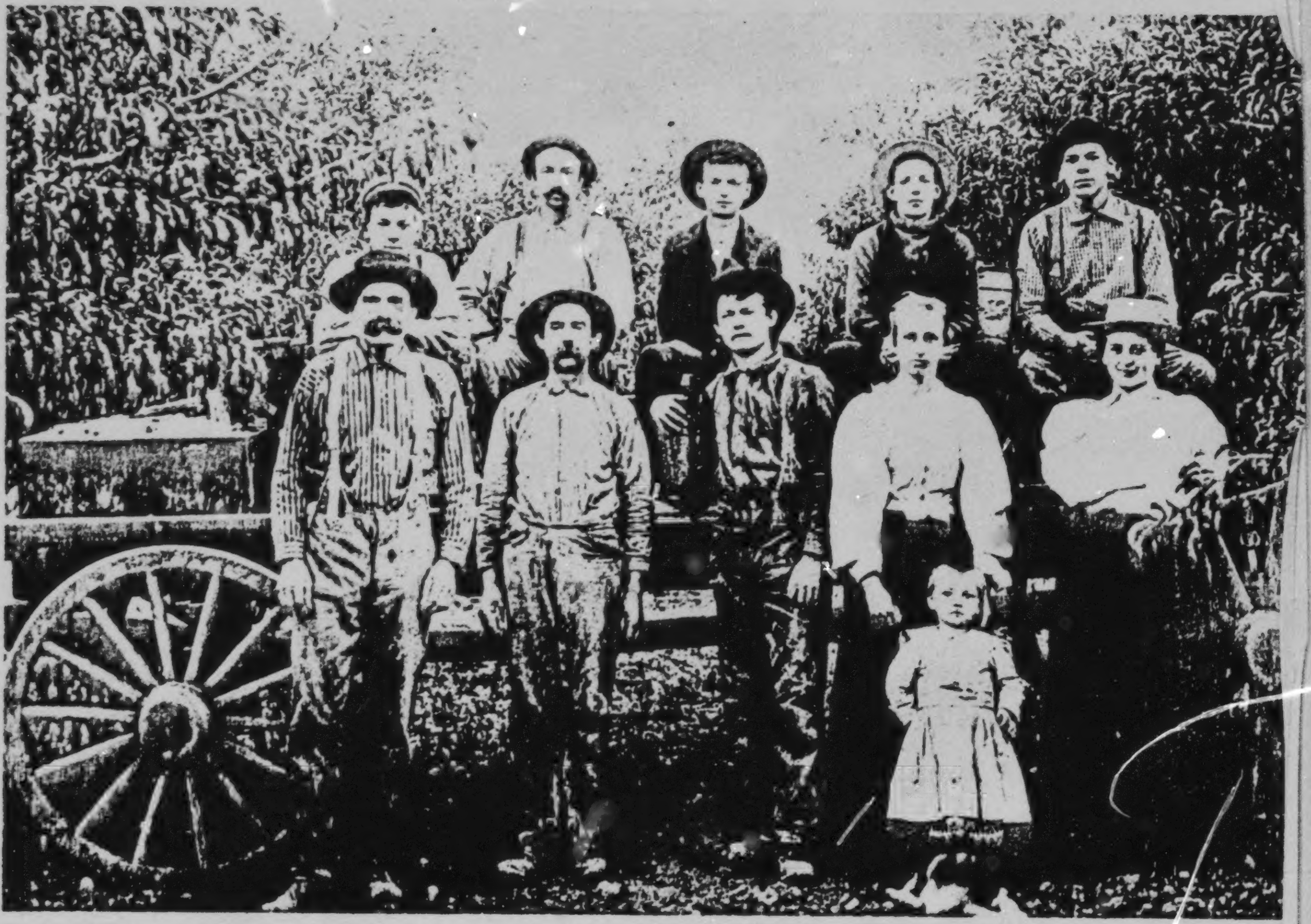

Fig.4. Crew at Abner Riddle prune orchard, near Riddle, c. 1896.

It is said that nobody got rich on prunes, but everybody got by. The society which was financed by prunes is remembered fondly as being a well integrated and prosperous turn of the century agricultural community. During the one-month harvest period everyone, young and old, rich and poor, was in the orchards. Wages varied over the years and according to the age of the trees, but a reasonable figure was $2.50 per day for shakers, 5 to 7 cents a box for pickers, and $2.50 to $3.00 each for dryers, traymen, and firemen. One retired school teacher remembers earning $11 as a picker during her first harvest. She used the money to buy her first good coat. One prominent citizen, who claims the championship for picking, earned $11 in one day during the 1930s. As late as the 1940s, if the harvest was late, the opening of school was postponed.

Education was not slighted, however. High school instruction began in Canyonville in 1902 and in Myrtle Creek in 1906, when the school was moved from the present site of City Hall to its current location. Both were well built two-story, eight-room schools with a grade school located on the ground floor and a high school located on the top floor. Teachers were given one-to-three year contracts upon successful completion of written state examinations, based upon questions from the textbooks. A high school diploma was required of teachers, and principals usually were normal school graduates. Wages were $45 to $80 per month. Curriculum included reading, writing, arithmetic, history, geography, physiology, civics (including current events), and agriculture. Penmanship was practiced every day. Physical education, sports, and music were added about 1912.

During this period hotel restaurants charged 25 cents a meal for farmers and 50 cents for drummers, who got a tablecloth. Storekeepers operated on credit. When bills were paid, the customer received a cigar, an orange, or a piece of candy, depending on age and sex. One storekeeper in Myrtle Creek had a standing joke that women who paid their bills had a choice of an orange or a kiss. The orange was always preferred. Each community had a band which played at Fourth of July parades and other events. The county's first newspaper south of Roseburg, the Myrtle Creek Mail, was established in 1904. Myrtle Creek and Riddle each had a bank. The growing number of available services brought in bankers, retailers, band leaders, and other specialists. While a few

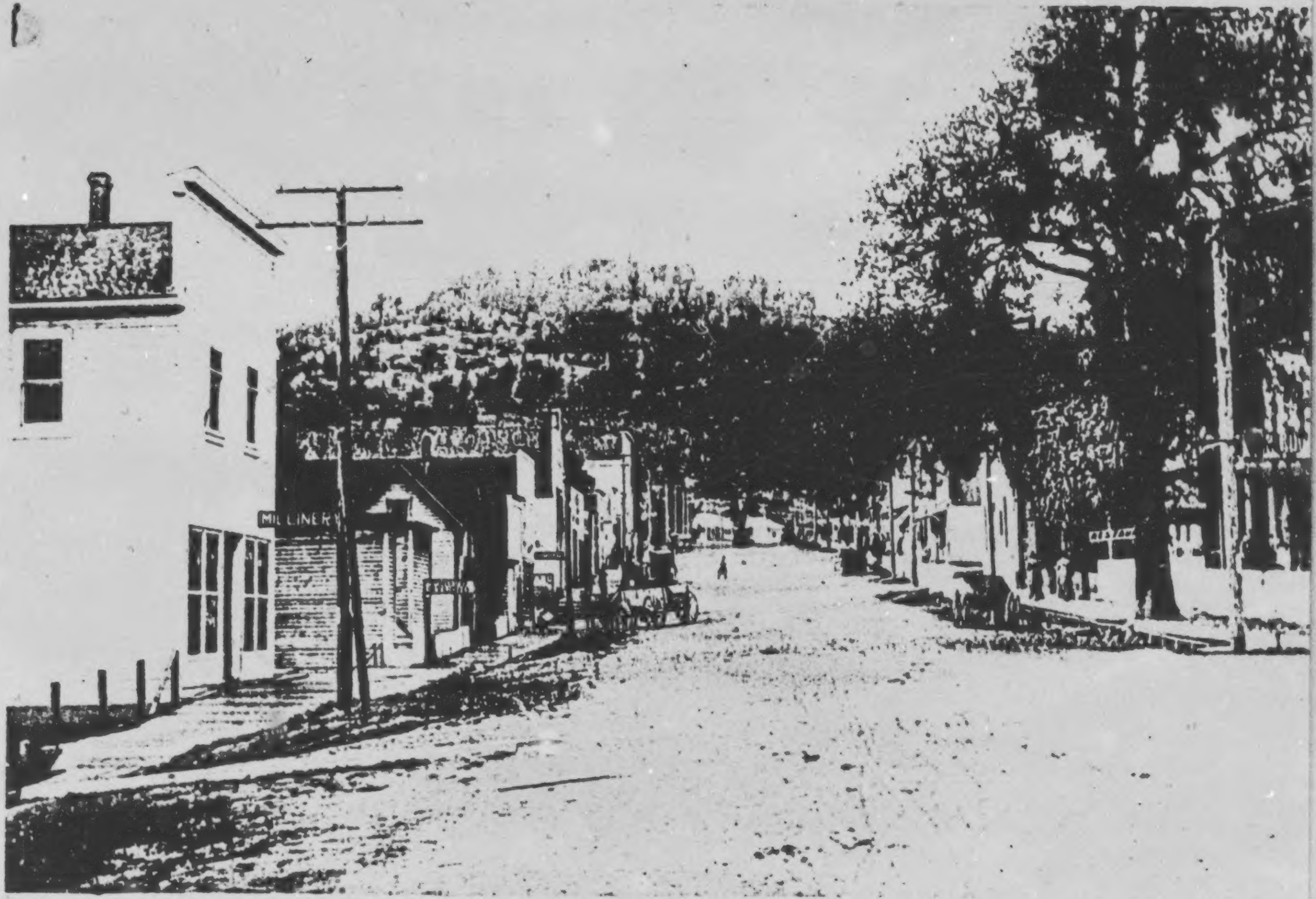

Fig.5. Main street of Myrtle Creek, looking north, c. 1895.

laborers came in to work on the railroad or in the mines, the broad middle class was dominated by descendants of the original settlers. The three Masonic lodges in the area were well attended. Much social life centered around picnics, potluck dinners, and outdoor activities. The first restriction on hunting--five deer per season--was not imposed until 1912. More information about this period may be found in John M. Cornutt's Cow Creek Valley Memories, which provides a sensitive account of day to day life around the turn of the century.

While some towns in gold rush country have stressed the more rugged anecdotes of their past by annual reenactments of ancient gunfights or by preserving saloons as museums, the so-called "Western tradition" was explicitly played down in South Umpqua. South Umpqua, if it chose, could easily match any community in the West. Its history included "High Noon" style showdowns, range wars, the nation's first major cattle drive (1838) and its largest stagecoach robbery ($300,000), a gold rush, Chinese tong wars, and one of the more plausible lost gold mines. Instead, it chooses to remember the quieter periods of history, such as the sometimes dull periods of financial independence (Cornutt, 1971; C. Riddle, 1954; G. Riddle, 1953; WPA, 1938-39), rather than the troublesome events, which were often years apart and of brief duration. Published works stress technology such as locating bee trees. Cattle ranching was said to be an attractive enterprise because of the scarcity of rustlers. One WPA informant, apparently asked for some thrilling tale of danger, said that sort of thing came in with the introduction of the automobile. Another, when asked to tell of some exciting event in his youth, recalled the case of two girls getting into a fight over the use of the school's water dipper. Davis' fictionalized description of the people as being able to survive hard times without suffering or loss of independence and to benefit from good times without change of life style seems to be accurate (1935, p.4).

The settlements in the valley had not existed for 70 years without leaving their mark on the larger society. Generals Sheridan, Kearney, Hooker, and others received much of their early practical training here. The founder of the Manning coffee industry is from Canyonville. Vandenbosch, whose wife taught the first school in the valley, became a millionaire industrialist through the invention of refractory processes, and a close

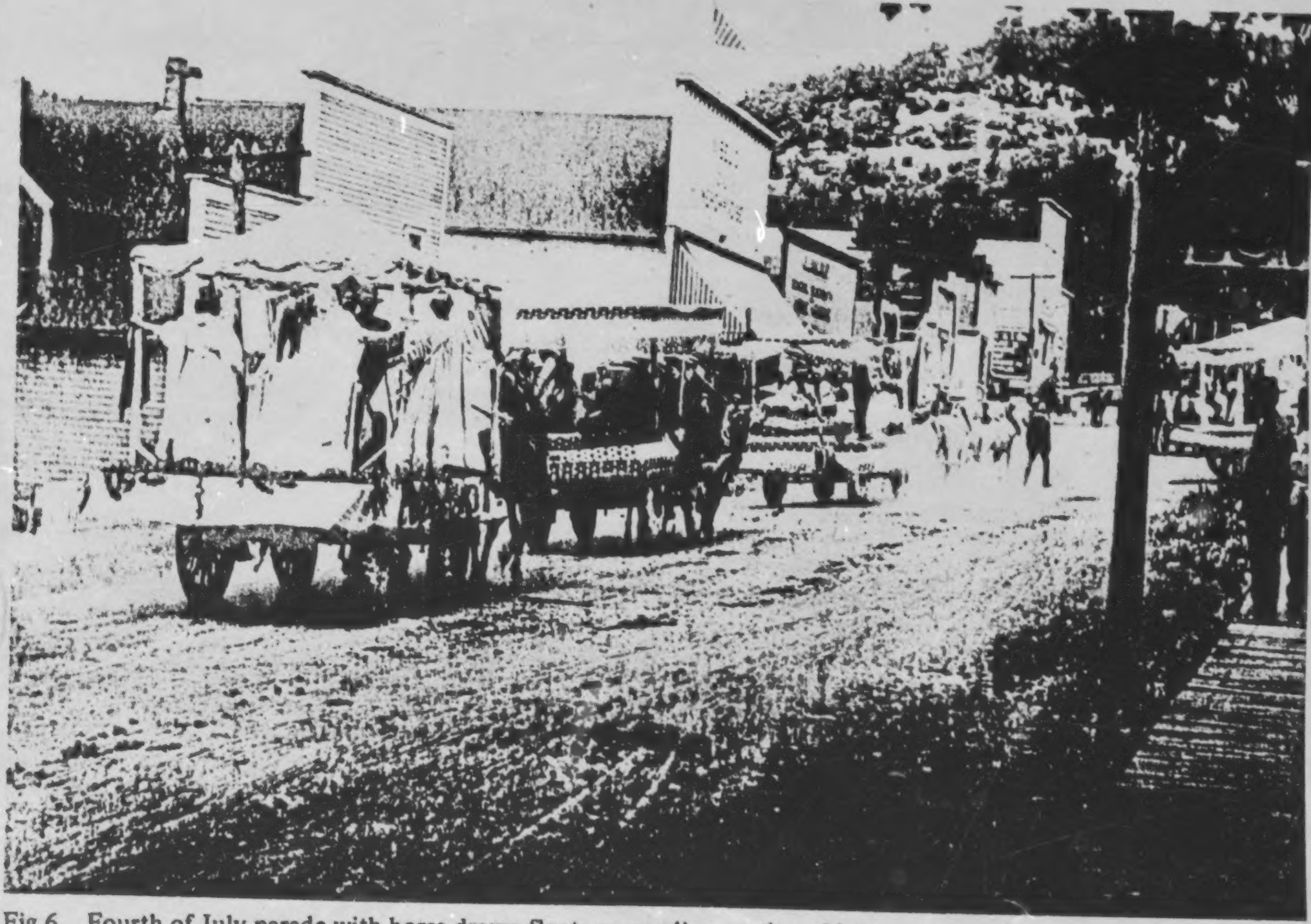

Fig.6. Fourth of July parade with horse drawn floats proceeding north on Main Street, Myrtle Creek, c. 1890.

associate of the Studebaker family (Riddle, 1953, p. 59). Binger Hermann, the first school teacher at Canyonville, became United States Land Commissioner. Ed Shieffelin, millionaire discoverer of the Tombstone mines in Arizona, died at the door of his cabin near Days Creek, outside of Canyonville. Specimens in his pan assayed at $2,000 per ton, and in his diary was a note of a few days earlier: "Found it at last. It's richer than Tombstone." The mine has never been located (Boyle, 1969). Pulitzer prizewinning novelist H. L. Davis was from Yoncolla, north of Roseburg. Jack Weaver, successful inventor of farm machinery since 1919, still plies his trade along Weaver Road near Myrtle Creek. There may be more, for these references are only now being traced down by the newly formed South Umpqua Historical Society.

By 1920, Myrtle Creek had a population of just under 500. Businesses consisted of three garages, two general stores, two doctors, two blacksmith shops, and one grocery, a hardware store, a dentist, a furniture store, a drug store, a second hand store, a butcher shop, a barber shop, a shoe repair shop, a bakery, a newspaper, a cafe, a bank with capital of $10,000 and surplus of $10,000, a flour mill, and a prune packing plant (Mail, November 25, 1921). The city operated its own power plant and water system. There were four churches: Methodist, Baptist, Christian, and Lutheran. Promoters of the Myrtle Creek area were of two minds about the surrounding forest. On the one heand, the Myrtle Creek Mail severely scolded the Forest Service for not allowing the expansion of sheep pasture through issuing of burning permits. At the same time, forestry was seen as the industry of the future:

> While the Myrtle Creek country is destined to be a great lumber center--the key city through which billions of feet of standing fir, pine, and cedar timber will eventually pass to the world--those who would seek a home here, for the present would have to look to some other source for a livelihood (Mail, November 25, 1921).

Canyonville had a population of about 150 in 1920, a brick two-story feed and general store, two hotels, a drug store, a doctor, a Methodist church, and a sawmill with a capacity of 5,000 board feet a day. Riddle had a hotel, a bank, a grocery store, a confectionary shop, a laundry, and a Baptist church. The city had its own water supply, and some families had home operated electric generators.

Local government was by mayor and town council, which met monthly in open meetings. The school board also met monthly in open

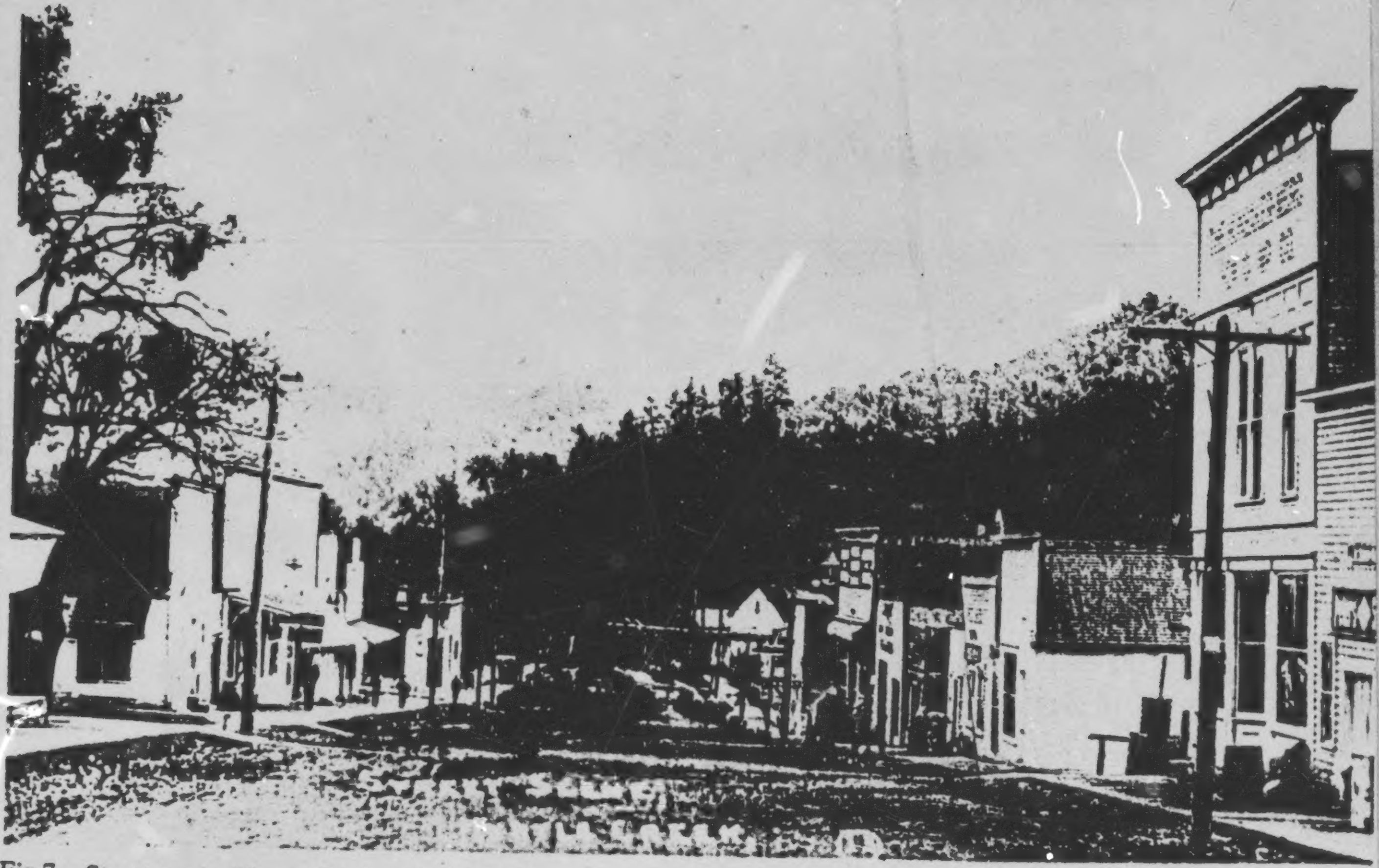

Fig.7. Street scene, Myrtle Creek, looking south on main road, c. 1905.

meetings. The school budget was prepared by the board and voted on by the public each year. The elections for town councilmen, school board members, and the school budget were held separately, as were votes on specific issues such as sewer bonds.

Each community had a combination grade school and high school. They each had four grade school rooms for teaching grades 1-2, 3-4, 5-6, and 7-8 simultaneously. Requirements for teachers were a high school diploma and certification by the state Board of Higher Education. Certification was dependent on statewide tests administered at county seats. The tests consisted of objective questions intended to show comprehensive knowledge of the school textbooks. A satisfactory score earned a one-year certification; a perfect score brought certification for three years. After six consecutive years of teaching, a lifetime certificate was earned. Teachers were often female; principals, who also taught, were often male. Teachers were hired by publicly elected school boards of three or four members. Salaries of $60 to $100 per month were renegotiated each April or May, and contracts were usually for one year, with a maximum of three years. Starting in 1924, the schools began hiring teachers with two-year college degrees. In 1928 and 1929 they began hiring teachers with four-year college degrees, although even three years of college were not required by law until 1933. Textbooks were chosen by the county school board and were purchased by the students. Teams from the schools of the communities played each other in baseball, basketball, and track, and home games were major community events. Several residents mentioned that "all the girls cried when our team lost."

In 1928 the Myrtle Creek school burned to the ground. After a one-week recess, teaching was resumed in the Grange and in the Christian church. In September of 1929, a new school building, which now serves as the upper elementary school, began classes.

South Umpqua shared the national decline of farm income during the 1920s. The prune industry peaked out in 1919 and then began a decline which is now almost complete. Farmers who received 16 cents per pound for prunes in 1919 received 2 cents per pound the following year. Some people blamed the decline on the loss of the German market, some on the greater availability of fresh fruits after the development of refrigeration cars, others on connivance among the prune buyers. The Myrtle Creek Mail advised farmers to diversify, noting the good profits being made by those

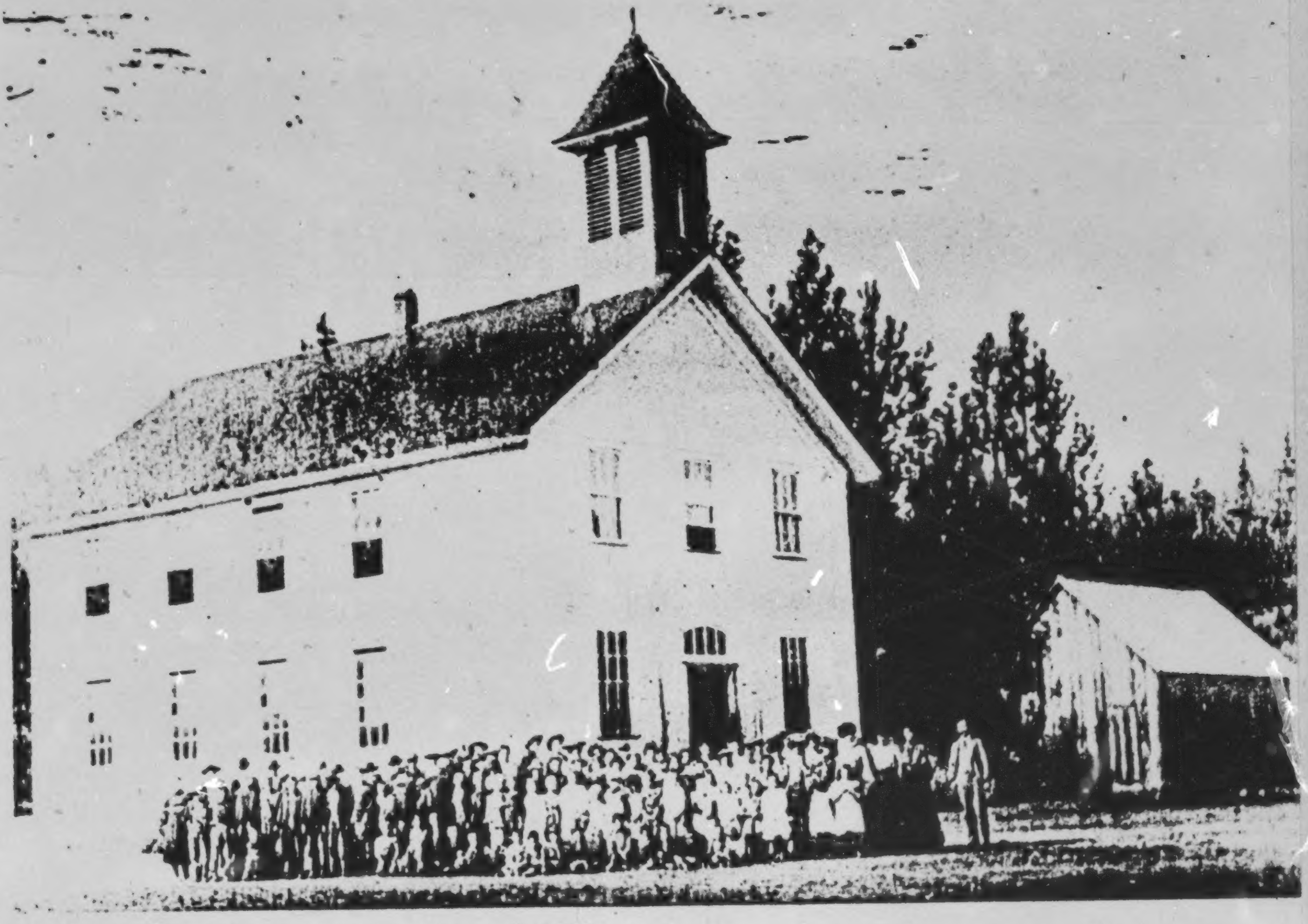

Fig.8. Canyonville public school and class, early 1900s.

who grew winter cauliflower (locally called broccoli), turkeys, and strawberries. The coming of the first interstate highway, now called old 99, in 1920 brought new trade, especially to Canyonville.

Stelzier Box and Woodworking Factory opened in Myrtle Creek in 1923 to supply the local market for packing crates and fencing materials. Later, the factory secured major contracts to supply cedar blanks to a California pencil factory. The Canyonville Bible School and Orphanage (now Canyonville Bible Academy) was established in 1924, making that town a center for evangelical camp meetings during the summer. In general, few new businesses moved in, and the towns experienced only marginal population gain. "The ruinous prune situation during the past several years is what has contributed largely to bringing people to the verge of bankruptcy" (Mail, November 27, 1925).

The first good prune years in a decade were in 1929 and 1930, but cash became extremely scarce with the coming of the Depression in the 1930s. The bank in Riddle closed its door as a result of malfeasance by its manager, and a few elderly merchants retired early. Mr. Bates, manager of the Citizens State Bank in Myrtle Creek, is said to have always insisted on sound business practices for both himself and his customers. The bank remained solvent, and there were few foreclosures.

Many anecdotes of the Depression are remembered. Wages for county highway employees dropped from $5.00 to $1.50 a day, and the work week shrank to three days. Farmers received chits to apply against county taxes, rather than cash, for jury duty. Cattle ranchers fed their families venison, saving livestock for sale at low prices. There was a revival of interest in gold panning or "crevicing" as it was locally known. Forest fires were welcomed for the wages they brought fire fighters. Members of the ladies' card clubs often could not attend because they lacked the 10 cents required for the games. When parents were embarrassed by not being able to afford graduation clothes for their children, Mr. Bates, the banker, set an example by sending his daughters to graduation in homemade dresses.

The Depression did not hurt this area as much as it did many others, however. For all the hardships, South Umpqua Valley actually attracted outsiders who came to live off the land. Several residents have said that money was needed for taxes and clothes, but little else. One prominent citizen recounts having applied for work on a WPA project. He was told he could have the job, but he would have to accept his wages in groceries. "I've got groceries," he told them; "I need a new pair of overalls." When told again he would have to accept wages in groceries, he replied he would put another patch on his old overalls.

After the prune industry, the next major industry that was developed in the area was that of lumber. By 1939, the West Coast price of lumber had recovered to what it had been 10 years earlier, and a number of companies scouted the area for mill locations. The Myrtle Creek Mail favorably reviewed negotiations for new mills in Myrtle Creek, and a 15-man mill opened in Canyonville in 1938. The outbreak of World War II caused further expansion in the lumber industry. Lumber mills were established on a crash basis; ironically, since many residents had left the area to work in the shipyards in Portland, other workers were brought in from the state of Washington. The year 1944 saw the rather sudden appearance of great "cold decks" of hastily cured pilings awaiting shipment. During 1945, Sunny Lumber Company built a large mill near Riddle, and Fir Manufacturing Company (Firmco) built an even larger mill in Myrtle Creek. Both were intended to supply plywood for military packing crates, and both were organized on a company town model, with company baseball teams and employer-owned housing. Sunny built 29 substantial homes in Riddle, and Firmco constructed four blocks of plywood barracks-style apartments in what is now downtown Myrtle Creek. After several delays caused by fires, Firmco (later renamed Umpqua Plywood Company) started production on December 20, 1945. At that time, it had a capacity of 150,000 board feet per eight hour shift and employed 100 persons in the mill, plus 75 to 100 in the woods. Between 1940 and 1946, the population of Myrtle Creek grew from 425 to 750.

Demobilization of the armed forces and the postwar housing boom resulted in the most active decade of the valley's history. Mills worked double and triple shifts, and new mills came in, many of them small undercapitalized mills, called "gyppos" in the Northwest. At one time, the Riddle post office was handling mail for 13 mills. The population doubled overnight, and public facilities could not keep up with the expansion. The housing situation was nearly impossible. Some families lived in tents for more than a year. Many families built garages after work and lived in them while building their homes. There were long waiting lists to rent the barracks-style "temporary" homes in Myrtle Creek. Some families built on what turned out to be flood plain. Septic tanks contaminated well water. A great many committees were formed in order to try to solve these problems, and a great many meetings were held.

The establishment of the community of Tri-City was one direct result of the population expansion. The residents of Tri-City date the history of their community from 1946, when several farmers along Highway 99 subdivided their orchards into residential property. Businesses, such as a bowling alley, a drive-in theater, and building supply firms, were attracted to the area because of its central location serving the three already established communities. It is said that at one time Tri-City was the most populous community in South Umpqua.

Most of the local residents who had left for military service or defense work seem to have returned to the area. New merchants, who came from various parts of the United States, intended to make the area their home; many of them still live in South Umpqua. New mill workers and loggers came mainly from the West Coast states and the Oklahoma-Arkansas area. Some of these were of the "tough logger" tradition, in which the woods boss is supposed to be able to beat up every man on his crew. Some, as the saying went, "ran away with somebody's wife." Most, however, were family oriented, as was reflected in the increased school enrollment. The need for better schools, water, and sewerage facilities took precedence over expanded law enforcement.

The population expansion affected the schools as well. For nearly five years, students in Myrtle Creek went to school half days. Classes were taught in the gym, the Grange, and the basement of the Methodist church. Quite a few parents, unable to find housing, moved out during the school year. One grade school teacher remembers having taught 90 students in a single year.

Canyonville found itself caught up in the expansion by virtue of proximity to Myrtle Creek and Riddle. An offer of low cost federally financed housing had to be rejected because it would oblige the city to provide water and sewerage facilities to the developing areas, while already existing homes remained on the waiting list. Classes were taught in the gym, the fifth grade facing one wall and the sixth grade the opposite.

In 1950, a new high school was built in Myrtle Creek, supposedly to allow resumption of normal classroom scheduling, but before it was completed, a continued increase in enrollment forced a bond issue for major additions to the grade school. Both were dedicated in October, 1951. A new grade school was established in the southern part of the district to serve Tri-City in 1952. New grade school buildings were constructed in Canyonville in 1954 and 1955, and the old building became the high school.

Public participation in the expansion of schools and other facilities was great. The pattern was for neighbors to gather, often in the school gym, and form an organization, and then elect a committee to draw up and circulate petitions. Special fact finding committees would be organized to get information from the school board, the town council, or county officials. Plans were drawn up and submitted to the county registrar 35 days before an election by the appropriate legal body. If a bond election failed, there could be another election after 35 days. Debate over rival plans is recalled as being vigorous, and opposition was sometimes strong. All agree that the PTA thrived. Often there was not enough room in the gym or cafeteria to accommodate all who attended. Many lasting friendships and animosities were formed by planning groups during those growth years.

Expansion continued until the mid-1950s. In 1952, Hanna Mining Company announced immediate plans for opening a major nickel mine and smeltery in Riddle. That same year Umpqua Plywood Company announced that, in spite of depressed lumber prices, plans for modernizing were still in effect. Problems arose, however, and on February 24, 1955, the Myrtle Creek Mail's banner headline read:

> UMPQUA QUITS LOCAL PLYWOOD
> Terminate 359 Workers; Will
> Keep On Operating Sawmill

Within a year the sawmill section had also closed, taking another 120 jobs. Other mills were also closing or reducing shifts. Many workers were forced to leave the valley. Those who remained had to assume the tax load of paying for newly installed facilities. One reason given for Tri-City not incorporating with Myrtle Creek was fear of higher taxes by residents of both communities.

Hanna Mining Company absorbed some of the unemployed at reasonable wages. One person in a position to know claims that if it had not been

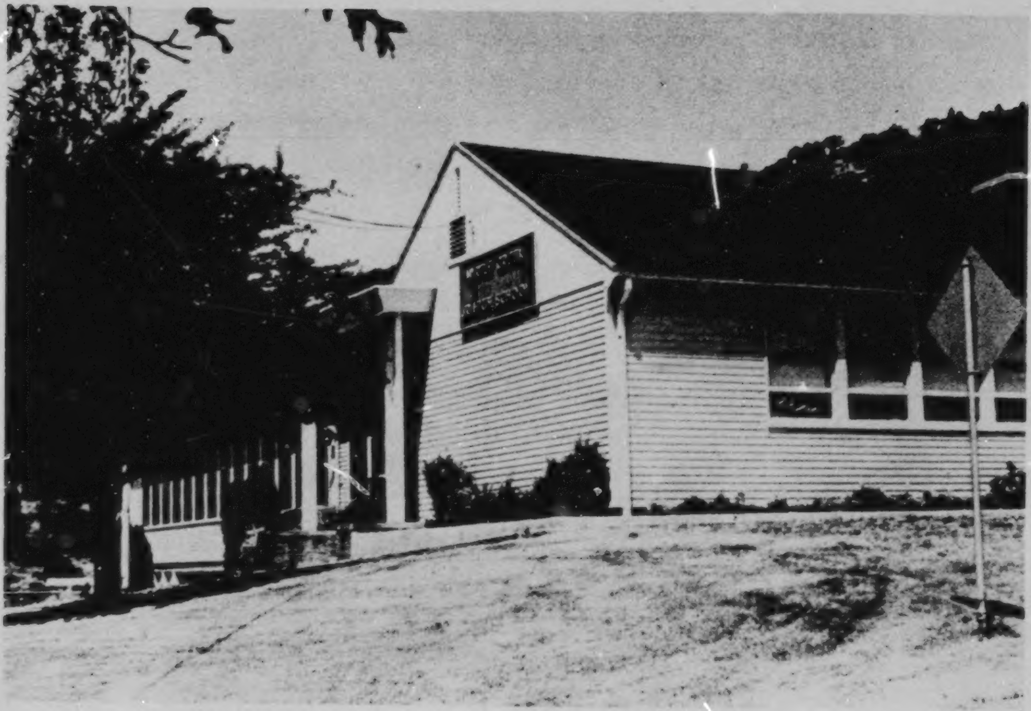

Fig.9. Myrtle Creek Junior High, built in 1950. Used as a high school until 1965.

Fig.10. Tri-city Elementary, built in 1954.

for Hanna, Tri-City would have died. The area's traditional place on the north-south trade route provided stopgap employment during the construction of Interstate 5, a gas pipeline, and a television coaxial cable. Some workers, unable to sell their houses for as much as they paid for them, commuted 60 miles a day to outside mills. Some tried to support their families by "bucking the extra board"; that is, by reporting at the mills each morning to replace any absentee regular employees. Some wives sought employment for the first time. One resident recalls going from a $1.80 per hour job at the mills to 90 cents an hour for the railroad.

## THE COMMUNITY AT THE TIME OF ENTRY INTO THE EXPERIMENTAL SCHOOLS PROGRAM

During the 1960s, the population of Canyonville decreased by 149, and Myrtle Creek grew by 500 to 2,733. Since the 1970 census, all communities in the valley have been growing. In 1967, Roseburg Lumber Company began building a mill, said to be the largest lumber manufacturing complex under one roof, near Riddle. In 1970, C&D Lumber Company greatly expanded its mill near Riddle. Presently, the two mills together employ more than 1,000 workers. Green Valley Lumber Company, employing about 350 workers, is the only large-scale manufacturing firm in the South Umpqua school district.

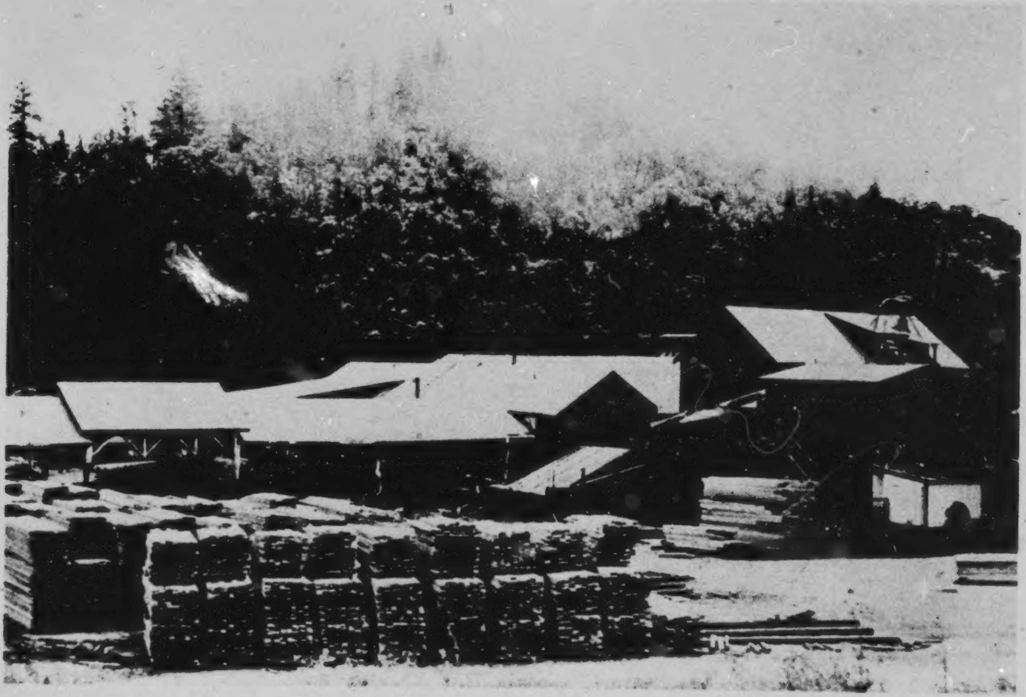

Fig.11. The Green Valley Lumber Co., Myrtle Creek, 1974. The only heavy industry in the South Umpqua School District.

Despite the expansion in the lumber industry, unemployment in 1970 averaged 7.9%, ranging from a low of 6.0% in September to a high of 10.5% in February (Letter of Interest, p. 4). Although prices of perishables were slightly higher than in the major cities of the state because South Umpqua is a net agricultural importer, rent (averaging $64/month) was lower. Seventy percent of the families in Myrtle Creek owned their own homes in 1970 (Bureau of Governmental Research and Service, 1971). The Douglas County Planning Commission did not anticipate much further expansion in the lumber industry (DCPC, 1969, p. 37).

Along with expansion in the lumber industry, recent immigration of retired or self-employed persons from the South and from California has caused an expansion in the housing and service industries. Real estate prices have been moving upward rapidly, and housing and other facilities are only beginning to catch up with the new demand. School population, however, has remained fairly stable due to decreasing family size. Expansion has centered mainly in South Umpqua rather than in Riddle. The early 1970s saw a great deal of activity in home construction and the building of new restaurants, shopping centers, medical-dental complexes, motels, churches, repair services, and a new bank building. Many of the new residents have been attracted to the area because of its potential for self-employment. These businesses in the construction and service eoconomy are characterized by family-owned firms, which are increasing in number more rapidly than are nationally advertised franchised businesses.

The area's physical beauty and lack of urban problems have also attracted new residents. Quite a few residents had held higher paying jobs elsewhere but preferred to make their homes here. Complementing this trend is a national tendency of emphasizing avocations, many of them inconsistent with urban living, and an increasing appeal of the "Western tradition" mentioned earlier. Canyonville has adopted a "Western theme" as its official motto for future development. That city's annual Pioneer Days celebration is assisted by such private organizations as the Smoky Valley gunfighters, a local quick draw club which tours rodeos around the state, and antique automobile, black powder, coon hound running, fiddler and saddle clubs.

Additional thriving avocations include motorcycle hill climbing, rock hounding, civilian band radio, quilting, landscape painting, organic farming, horse raising, recreational gold panning, literary review, and various crafts. Myrtle Creek's annual Antique Days auction is regionally famous among dealers and collectors.

Private organizations, much too numerous to list completely, include Lions, Elks, Grange, Chamber of Commerce, Junior Chamber of Commerce, Boy Scouts, Cub Scouts, and many special interest groups, ranging from quilting clubs to retired teachers' associations.

Although the district offers a rural style of living, it is not isolated from the social and cultural advantages that a city offers. Interstate 5 also puts the district within an hour and a half drive from the Shakespearean Festival in Ashland to the south, and the same distance from the University of Oregon to the north. Five television channels are received. Oregon's two largest newspapers are delivered daily, and the Roseburg News-Review provides daily local coverage. A small airport in Tri-City is used by private plane owners. A larger field in Roseburg has some commercial traffic, but residents have to drive to Eugene or Medford for passenger service.

Locally, the district is served by two hospitals, three banks, 29 churches (including those outside the school district), three public parks, three volunteer fire departments, and a weekly newspaper. California-Pacific Utilities, with a branch headquarters in Myrtle Creek, provides telephone and natural gas service. Pacific Power and Light, also with a Myrtle Creek office, provides electricity. Several hundred smaller businesses range from real estate offices and catalog stores to secondhand stores, a health food store, and a rock and gem shop. Canyonville's location on Interstate 5 makes it a favorite location for gas stations.

Myrtle Creek and Canyonville each has its own police force, sewer and water plants, volunteer fire departments, and each maintains its own streets. Both have public libraries operated under the direction of the county library board. In Tri-City police protection and street maintenance is provided by the county. A volunteer fire department is maintained, and there are publicly elected water and sewer boards, each of which meets once a month.

City government has remained basically the same over the last several decades, except that Myrtle Creek added a city administrator to its payroll in 1971. Problems of government are handled by five formally elected councilmen and a mayor who serve without pay. City councils meet once a month in the city halls. Major city employees, such as the chief

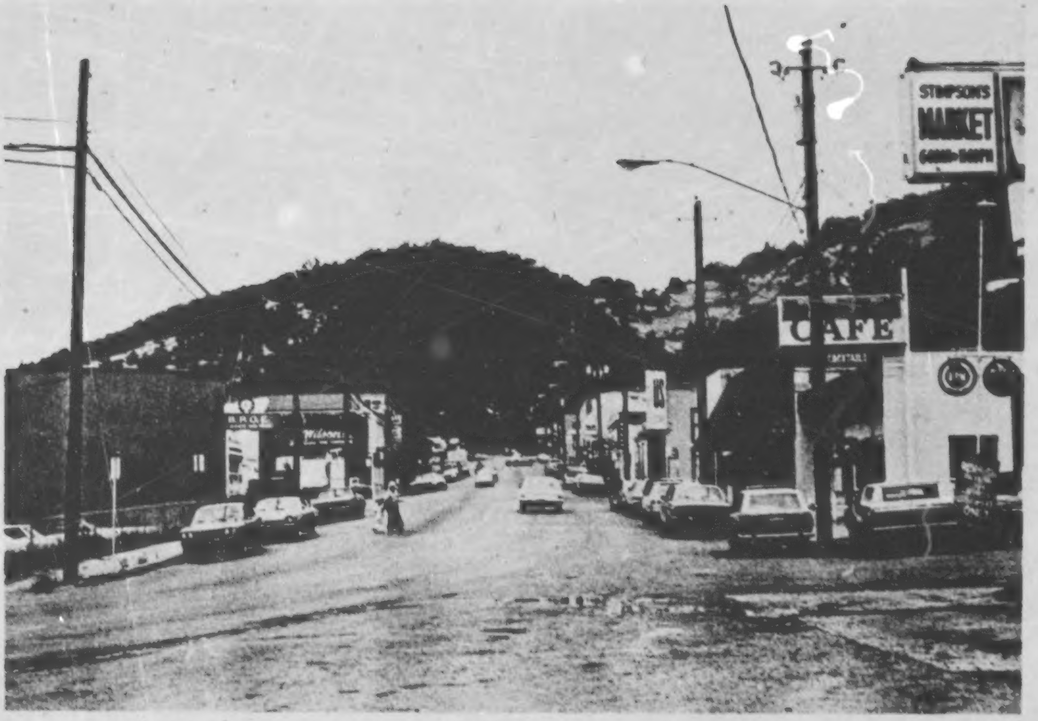
STIMPSON'S
MARKET
CAFE

Fig.12. Main street of Myrtle Creek, looking north, 1974.

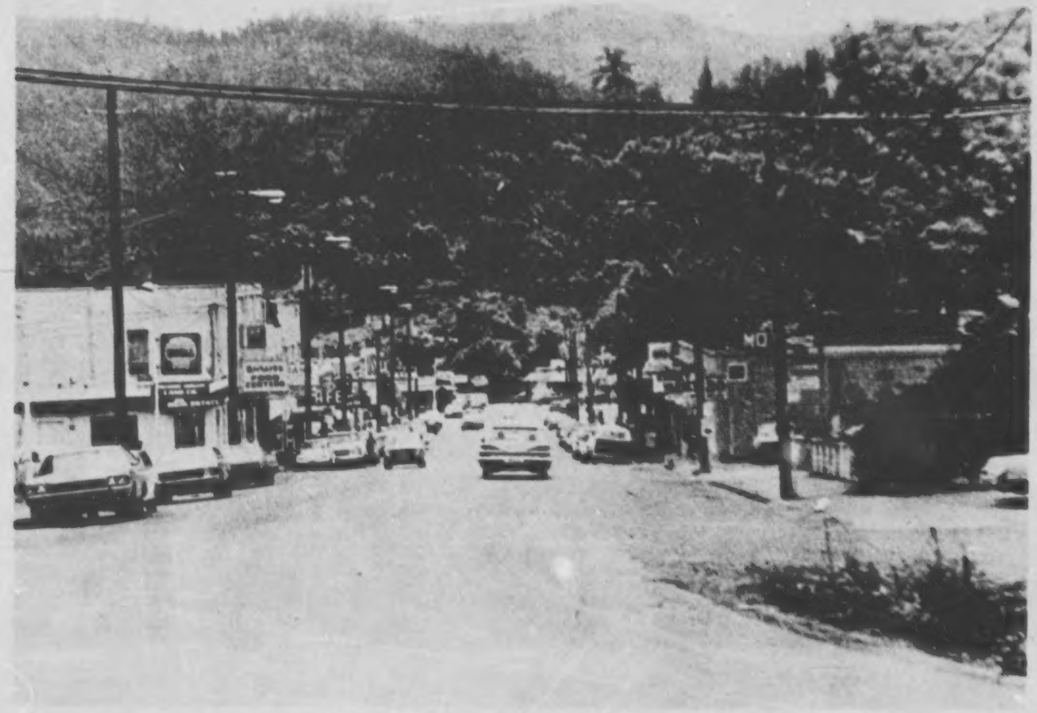

Fig.13. Main street of Myrtle Creek, looking south, 1974.

of police, and building inspectors, are expected to attend, and the public is invited. A formal agenda is followed, and questions may be asked from the floor. Each councilman is usually also the head of a committee of volunteer townspeople who serve to study city problems and make reports and recommendations to the council. Committees, such as those for budgets, planning, streets, libraries, etc., are often made up of local businessmen, former council members, or people with special expertise. The council has authority to raise taxes up to 6% over the previous year's budget. Any increase over that amount has to be approved by the voters.

## THE HISTORY OF THE SCHOOL DISTRICT, 1960-1972

### Consolidation

The radical shift in the economy and tax loads which took place in the 1950s influenced the outcome of attempted consolidation in the 1960s. Early consolidations, beginning in the 1920s, had been products of improved highways and the subsequent increased use of busing; these consolidations were mainly a process of larger school districts absorbing small one-room schools. In 1960, however, for the first time local school districts of the same size were asked to consolidate for administrative and revenue spreading purposes.

There were various legal mechanisms for dealing with the question of consolidation. The legal responsibility for public education fell to a publicly elected volunteer school board which had authority to hire and fire superintendents, levy taxes, and oversee the quality of instruction. The board was composed of seven members who served one-to four-year terms; continuity was assured by submitting one or two vacancies each year to the voters and by a state law that only two board members at a time could be subject to recall elections. School board meetings were open to the public; they were held once a month, and special meetings were held when the chairman declared them necessary. School administrators were expected to attend in a consultatory capacity. The superintendent was responsible for providing the agenda, but a member of the community could also have an item included on the agenda on 24 hours' notice. The school board put important issues to a public vote; citizens could place an initiative on the ballot with a petition signed by 10% of the voters of a precinct or by persuading the legislative body. At the time of consolidation, the school boards jointly made the decision to bring the consolidation question to the voters, with each district having veto power over the final result.

An attempt to consolidate the Myrtle Creek, Canyonville, Days Creek, and Riddle school districts failed in 1960, when Riddle voted down the measure decisively. In 1963, an attempt to consolidate the remaining three districts was voted down by Days Creek. On January 21, 1964, Myrtle Creek and Canyonville went to the polls again to decide whether to consolidate their two districts.

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The advantages, as reported by the Myrtle Creek Mail, would include: more equitable taxes in the area, an escape valve for overcrowded classes, an increase in both college preparatory and vocational offerings by the high school, and possibly the inclusion of special consultants in various fields and classes in special education for the mentally retarded. The disadvantages were listed as being in the areas of transportation and cafeteria service (Mail, Jan. 6, 1964).

The vote was held during a snowstorm, and many residents could not get to the polls. The consolidation measure carried easily in Canyonville, but passed by only 201 to 193 votes in Myrtle Creek. Although the resulting merger was legal, persons responsible for carrying it out still recall that they did not feel they had a mandate from the people.

The issue continued to be regarded as controversial, as evidenced by the heavy voter turnouts and the larger number of citizens who ran for positions on the new school board. In the special election for the new school board in February, 816 votes were counted on 20 candidates. Six out of seven of the persons elected to the new board had been members on the previous school boards, which had favored consolidation. Later in that same year, the polls recorded a 43% voter turnout on a $1-1/4 million bond issue for a new high school; the issue was passed.

Other controversial issues that were an outcome of consolidation concerned the reorganization of school staff. The school board, in an executive session, turned down a proposal to hire both the coach from Canyonville high school and the one from Myrtle Creek as co-coaches for the new consolidated high school; instead, it decided to hire only the Canyonville coach. In January, 1965, the Myrtle Creek principal resigned, basing his resignation on the failure of the board to allow him the power to select staff. He read his letter of resignation at a heated school board meeting which contained an overflow audience.

Later in the month, the Myrtle Creek high school students held an assembly to consider a protest walkout. The effort was scuttled when the student body was advised that such a protest would do neither the principal nor the coach any good (Mail, Feb. 4, 1965). Following several citizens' meetings, the board was presented with a series of key questions, the first of which was: "What is the board's view of the purported breakdown in communication between the principal, the superintendent, and the board; when did it happen and why?"

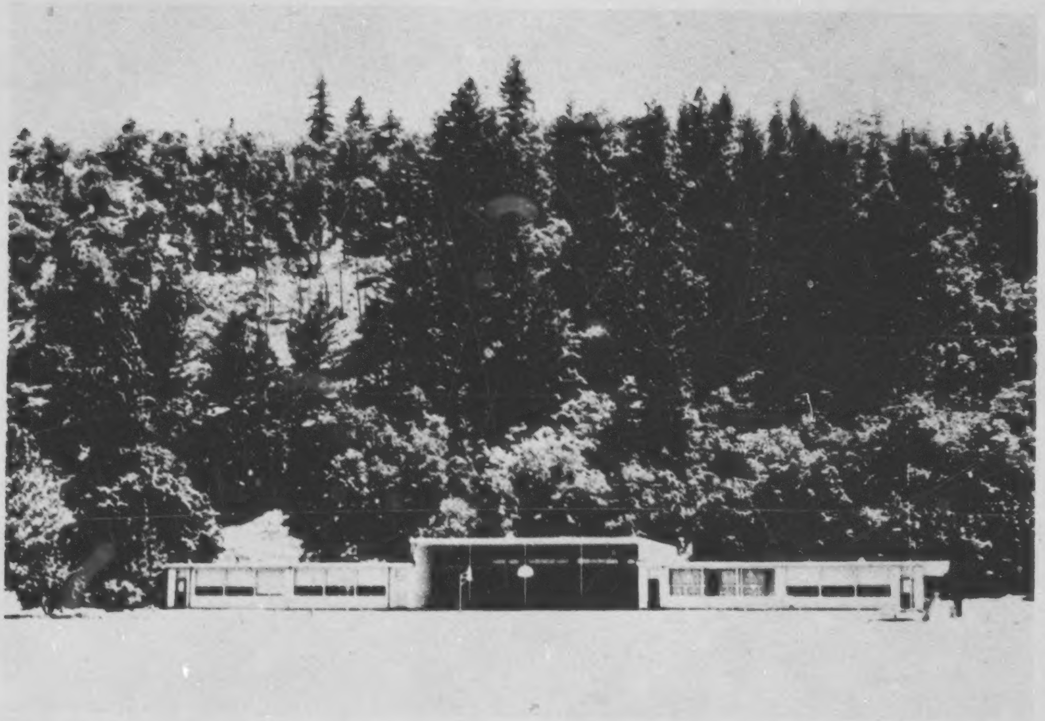

Fig.14. Canyonville lower school, grades 1, 2, 3, built in 1955.

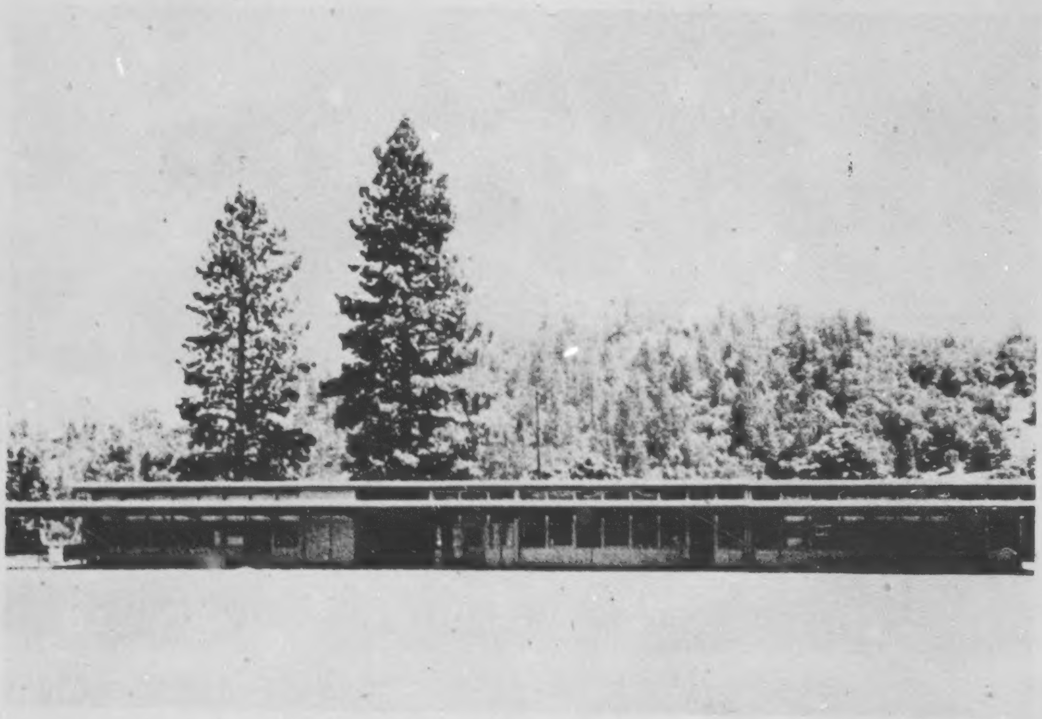

Fig.15. Canyonville hilltop school, grades 4, 5, 6, built in 1954.

The board contended that the initial breakdown in communications was with the principal in that he had committed a breach of policy by taking the hiring matter to the public, when, if he were in disagreement with the board's viewpoint, he should have called for a hearing with the board by notifying any member that he desired such a meeting to be called within 24 hours if necessary; and that further he had permitted to exist for a period a threatened walkout of students at the high school (Mail, March 4, 1965).

After several attempts at compromise, during which the coaches themselves were asked to work out a solution, well over the 428 signatures required for a recall election were filed.

On April 22, the Myrtle Creek Mail published a lengthy statement from the school board, which dealt with ten issues: school district reorganization, the bond issue, the location of a new high school, the hiring of a new clerk, the cost of the new building ($10 per square foot, versus $11.25 state average), the assignment of school personnel, the resignation of the principal, alleged ethical violations, the school budget (lowest in per pupil cost in the county), and the recall of school board members. The release ended with a decisive statement: "Believing the recall is not in the best interest of the schools or community, we strongly urge every voter to come out on May 3rd and vote 'NO' on recall."

The following week the recall group aired its views on the same front page. Four specific questions were heavily emphasized:

> 1. Why pick TWO men for recall?
>
> Answer: State law dictates that no more than two board members may be recalled in any annual school election....
>
> 2. What is wrong with the present personnel policy of the school board?
>
> Answer: Nothing is wrong with the policy as it is written in the handbook! The problem is that the board is not following its own policy!
>
> 3. What is wrong with the manner in which the board handled the principal's resignation?
>
> Answer: Many citizens and groups of citizens attempted to secure meetings with the board....
>
> 4. What will be the benefits of recall?
>
> Answer: Our children are now emotionally upset! The morale and achievement of the high school students since the beginning of the current problem are at a very low ebb....

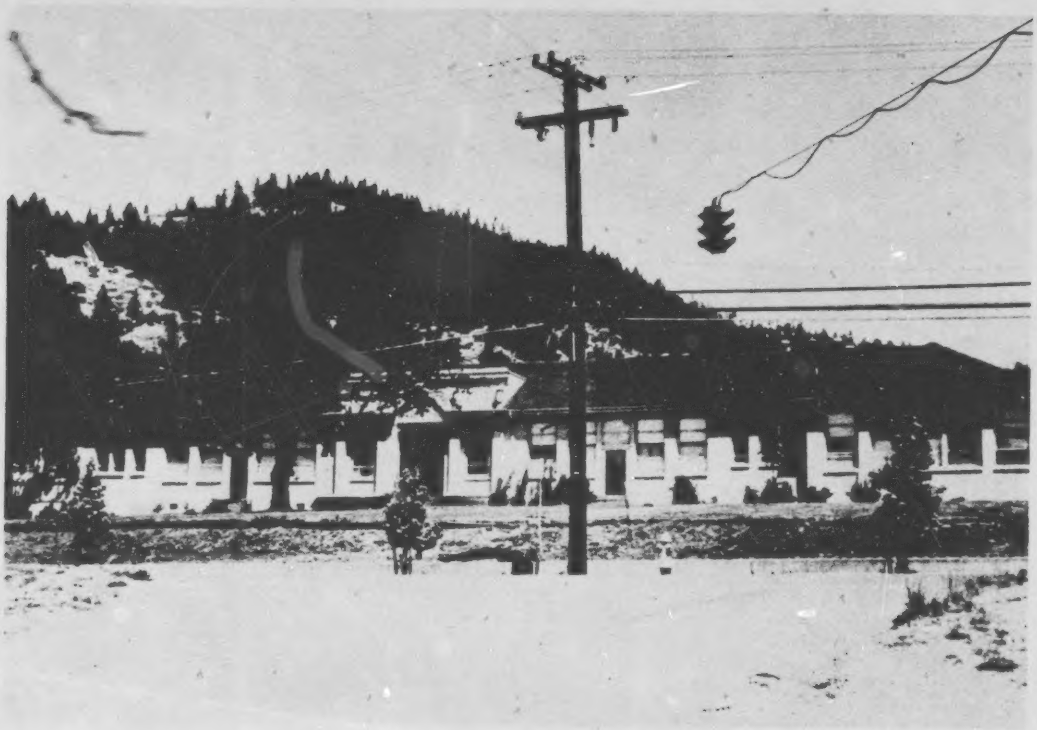

Fig.16. Myrtle Creek grade school, old building, built in 1929. Used as a combined grade and high school until 1950.

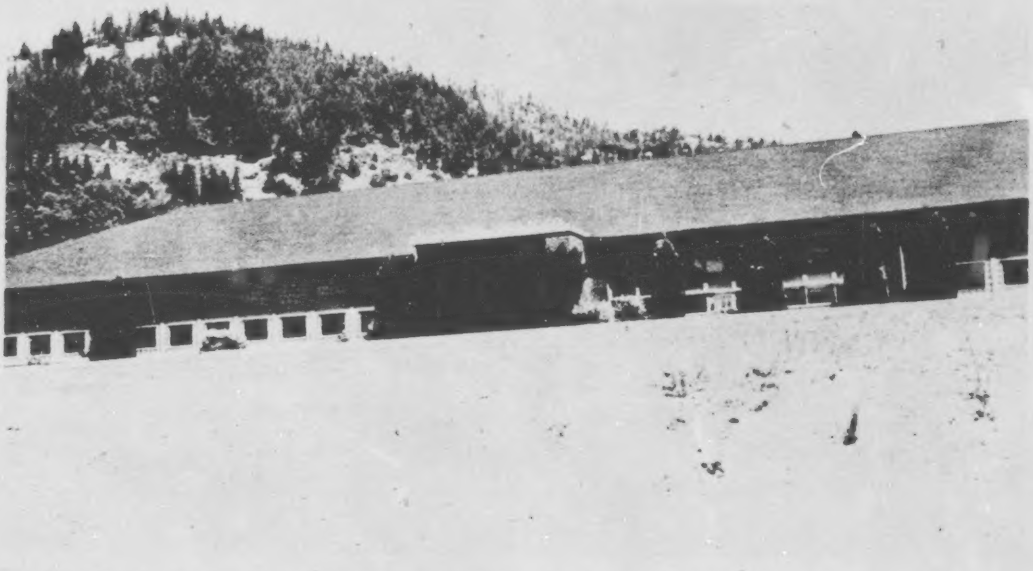

Fig.17. Myrtle Creek grade school, new building, built in 1951.

On May 2, 1965 the recall motion was voted down by a more than two to one margin in the heaviest election turnout yet recorded in the area. The school budget passed by a much narrower margin on the same ballot. Many voters marked their preferences on recall but left the budget decision blank as a way of expressing their dissatisfaction.

For about a year following consolidation, the schools ceased to be a controversial issue in the South Umpqua School District. In September, 1965, the newly constructed high school at Tri-City was opened for classes and the old high school became the junior high school. The Myrtle Creek Mail reported routine school news, much as it had before the consolidation vote. Most of the first and second pages of the October 28 edition were devoted to photographs of the new high school, with a sub-headline reading, "Years of planning and discussion in public meetings and school board sessions background the finished product of the South Umpqua high school...."

## The Budget and the School Program

The issue of the budget gradually replaced the problems of consolidation as the center of controversy. In Oregon, local school districts are required to raise funds for basic education from local taxation. The school budget is drawn up by the school administration on the basis of anticipated tax revenue and submitted to a required special budget board. Oregon law provides that any taxing district may set up a so-called "basic budget" which may be increased by as much as 6% each year without needing voters' approval. However, a taxing district need not have a basic budget at all; in these districts, each year's budget is considered to be completely new and must be voted on by taxpayers. Since the South Umpqua School District did not have a basic budget, each budget had to be voted on. If the budget could not be approved by the beginning of the school year, the school had to close its doors. Because of this possibility, the school budget elections were seen as both a matter of taxpayers' interest and a vote of confidence (or lack of it) for school policy.

The 1966 budget of $1,581,971 passed easily, with the largest item, teachers' salaries, totaling $720,352. The 1967 budget, increased by $87,000 due to higher cost of instruction, was voted down heavily. Objections to the budget apparently focused on several items: purchase of property, purchase of equipment to provide educational television (which would be largely financed by federal funds), salaries of teachers (and especially those of administrators), and the addition of teachers when the school population had decreased (Mail, March 23, 1967). The budget was chopped by $28,500 and passed by six votes on a second try.

From the 1967 vote on the budget, it was clear that the school program lacked the strong support of local residents. Late in 1967 the superintendent announced his intention of resigning at the end of the school year. The Myrtle Creek Mail increasingly carried articles on teacher salaries, either because they were becoming more controversial or because the citizens of the larger, consolidated school district were becoming more dependent on the media, rather than on face-to-face contact, in understanding school business. In the same column in which the Mail reported the superintendent's resignation, it also said that the school board was nearing agreement with the teachers on salary requests for the following year.

Between the time that the superintendent announced his resignation and the next vote on the budget, the state Department of Education accreditation committee evaluated and rated the Myrtle Creek grade schools. This evaluation is based, in part, on the many items relating to curriculum, accreditation, tenure, collective bargaining, financing, certification, and other school related matters which the state legislature passes each year. While the local schools have broad authority to adapt state requirements to local needs and resources, the accreditation committee, in the end, rates the schools as to whether or not they meet state standards. Denial of accreditation is often a sign that a school is about to be consolidated with a larger school district. Provisional accreditation is a judgement that a school is doing its best to improve quality and that it has the resources to succeed in doing so.

In evaluating the Myrtle Creek grade schools, the state Department of Education pointed out the following strengths of the school program:

1. The establishment of libraries in each building;
2. The provision for a central administrative area;
3. The offering of special education programs including remedial reading and the MR program;

4. The exploratory courses offered at the seventh and eighth grade levels;

5. The on-going curriculum improvement studies;

6. The improved playgrounds;

7. The favorable classroom loads;

8. The administrative supervisory personnel in each building.

The evaluators also called attention to the necessity of maintaining small classroom loads, the need to upgrade the gymnasium facility, the possibility of blacktopping the parking area, and the need for continued long-range planning.

In March, 1968, the school administration prepared a budget of just under $1,800,000, which the budget board reduced by over $32,000. The voters nevertheless rejected the budget by 123 votes. The school board expressed the opinion that the budget was minimal to maintain school operations at their present level and that, since less than 12% of the voters went to the polls, the vote did not represent the majority view. It was decided to resubmit the same budget to the people. The superintendent announced that non-certified personnel would be terminated as of June first, due to the failure of the budget. The Mail reported heavily attended meetings which called for cooperation between the school board, parents, teachers, and pupils in working out school problems in the district. A paid advertisement, urging the voters to approve the budget, stressed that South Umpqua had the lowest per pupil cost in Douglas County.

This time 65% of the voters went to the polls, slamming down the budget in every precinct. The fact that 46 voters handed in unmarked ballots emphasized that although budget elections are intended for the taxpayer's action, they are also used to register public attitude toward school policy.

The Myrtle Creek Mail reported that the budget was "clawed apart," amid "cries of anguish" in order to reduce it to a level that would be approved by the voters. A $700 across the board raise for the teachers, a target of disapproval, was defended as imperative. A sum of $65,930 was deleted from allocations for physical examination, vocational education, teaching supplies, textbooks, maintenance, insurance, remodeling, and instruction. On July 1, 1968, the voters approved the revised levy by a vote of 595 to 398.

The new superintendent, Dealous Cox, officially assumed his duties on the same day that the budget was passed. He was faced with a situation in which the directives of the state Board of Education and those of the local voters pointed in exactly opposite directions, and the mandates of each carried the weight of law. There followed five years of an unrelenting drive for modernization. Although the district's application of August 1, 1973, to NIE lists numerous innovations during this period, it does not mention the intangible changes such as those in emphasis, tightening of procedures, or clarification of roles (South Umpqua School District, 1973). Teachers, however, remember those years as being extremely active with "committees all over the place," and "lots of curriculum change." The thrust, however, was actually in a limited number of directions: upgrading the faculty, obtaining additional funding, and articulating curriculum.

In the years following the controversial budget of 1968, every budget passed on the first vote, and only one budget was closely contested. A survey of routine school coverage in the Mail suggests that the schools were no longer a major item of public controversy. Several factors contributed to this change of attitude. First, because the new superintendent had previously been a program management officer of Region 9 for Title III in the Office of Education, he was in a position to recruit staff members with a broad managerial background. Second, the tax base was increasing due to an expanding economy; at the same time, school building construction was complete and bonded indebtedness was steadily decreasing. Third, the volatile voting history of the school district suggested that built-in opposition to school modernization was, in actuality, small; instead, elections were determined by a large swing vote. At the beginning of consolidation, staff turnover had increased, with the result that many teachers were now relative newcomers to the area rather than established vocal members of the community.

The school board had also changed its policy somewhat. It espoused the ethic of not taking school administrative matters (as opposed to policy matters) to the public without first going through authorized channels. The school board declared itself to be a policy making body, not an administrative body, and to have a duty to "support the decisions of anyone we don't fire." The consolidation years were seldom referred to in conversation, but when they were, it was usually in warnings such as, "If we allow this thing to become a popularity contest, we'll be right back where we were during consolidation." The administration was thereby given the freedom and responsibility for handling the details of highly technical curriculum changes.

## The South Umpqua School District Today

The school facilities presently consist of one four-year high school in Tri-City, one grade school each in Myrtle Creek and Tri-City, a junior high school in Myrtle Creek, and a combined elementary and junior high school in Canyonville. Private schools in the area include Canyonville Bible Academy, which recruits students on a highly selective nationwide basis, a Seventh Day Adventist grade school in Canyonville, a Seventh Day Adventist boarding school in the Days Creek area, and a Catholic school in Roseburg.

The school employee structure consists of 14 supervisory staff, 123 certified faculty (including five interns), and 70 classified employees such as maintenance personnel. Librarians are certified teachers and are assisted by library aides.

Teacher applicants are interviewed by the appropriate principal for recommendation to the school board and, time permitting, also by one or more supervisors from the central administrative offices. If accepted, the teacher is offered a one-year contract. Three-year contracts are offered only after three years' experience in the district. Contracts are binding for both sides, and the Oregon Educational Association offers free legal services to teachers who feel their rights have been breached. Locally, teachers are represented by the South Umpqua Education Association.

To qualify for a teaching certificate a candidate must either have a certificate granted by another state or a bachelor's degree from a college or university in Oregon which includes fundamental education courses. In the latter and most frequent case, the teacher must complete 28 hours of additional coursework within the next four years, at which time he or she receives full certification. Faculty salaries are based on academic status and years of teaching experience. The average teacher's salary in 1972-73 was $8,235. More than 50 teachers have master's degrees or better. Mandatory retirement age is 65 years, except in case of emergency. In case of unexpected faculty turnover or other unscheduled needs, the schools can hire retired teachers or others on an emergency certification basis.

The high school curriculum is divided into five departments: career education, science-mathematics, social studies, physical education, and the humanities. Curriculum streams are not used; instead students are advised by two guidance counselors. In some cases, seniors are granted release time to work away from the school grounds, either under vocational education instructors or non-school employers. Vocational education classes in South Umpqua and Riddle constructed houses which were sold at a profit. The practice has been non-controversial because of the housing shortage. Some unusual courses which the high school has recently offered include prehistory, aerodynamics, Bible as literature, science fiction writing, and mythology.

The Myrtle Creek junior high school contains a two-hour language arts-social studies core. The elementary schools operate within a traditional organizational and curricular boundary: self-contained classrooms and standard curriculum content, with some ability grouping based on reading achievement, and some class changing at the fifth and sixth grade level.

Federally funded projects included Title I, education for the disadvantaged, Title II, library enrichment, and Title III, the pre-school program. These programs are not counted in the school budget but are the responsibility of the school board. The preschool program received national attention in an editorial in the state's largest newspaper and an article in Today's Education (February, 1973).

Special programs, such as those for driver education and educating the handicapped, are financed by common county funds through Intermediate Education Districts (IEDs) which replaced county school boards in 1963. The IED has two basic functions: revenue redistribution among school districts with different tax bases, and technical and legal assistance. Technical assistance programs include maintenance of a common county film library, record keeping, and other services that are most economically performed for all school districts by a central agency. Like the local school districts, the IED may either set up a basic budget that may be increased by a maximum of 6% annually without voter approval or submit a new budget to the voters each year. Any cuts in the IED budget must come entirely out of revenue distribution rather than technical assistance programs. Revenue remaining after technical assistance obligations are

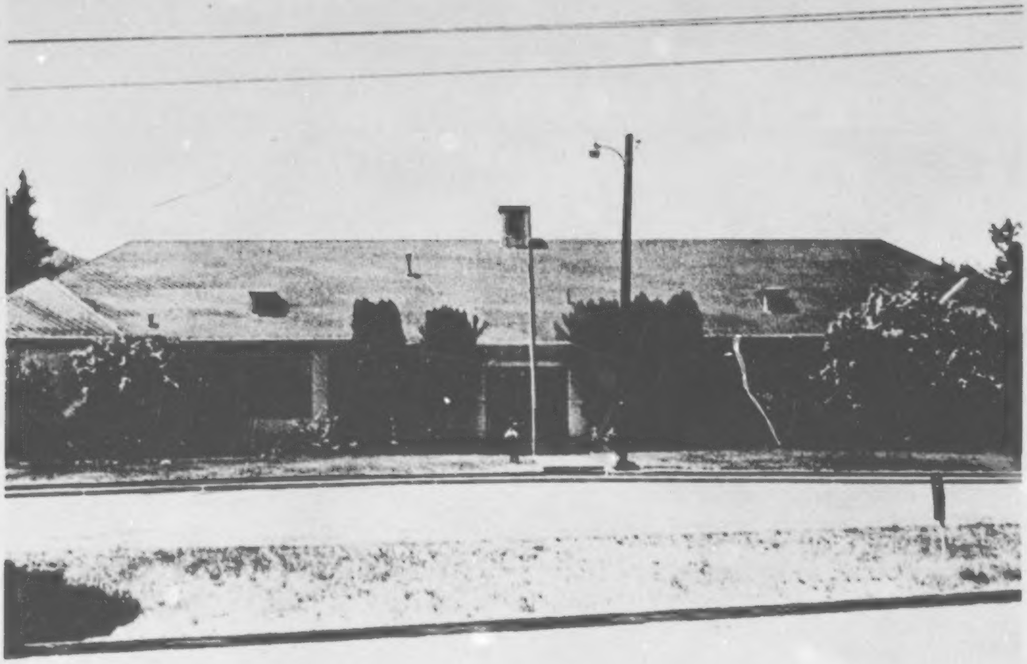

Fig.18. Canyonville Junior High School, built in 1936. Formerly a combined school, then a high school until 1965.

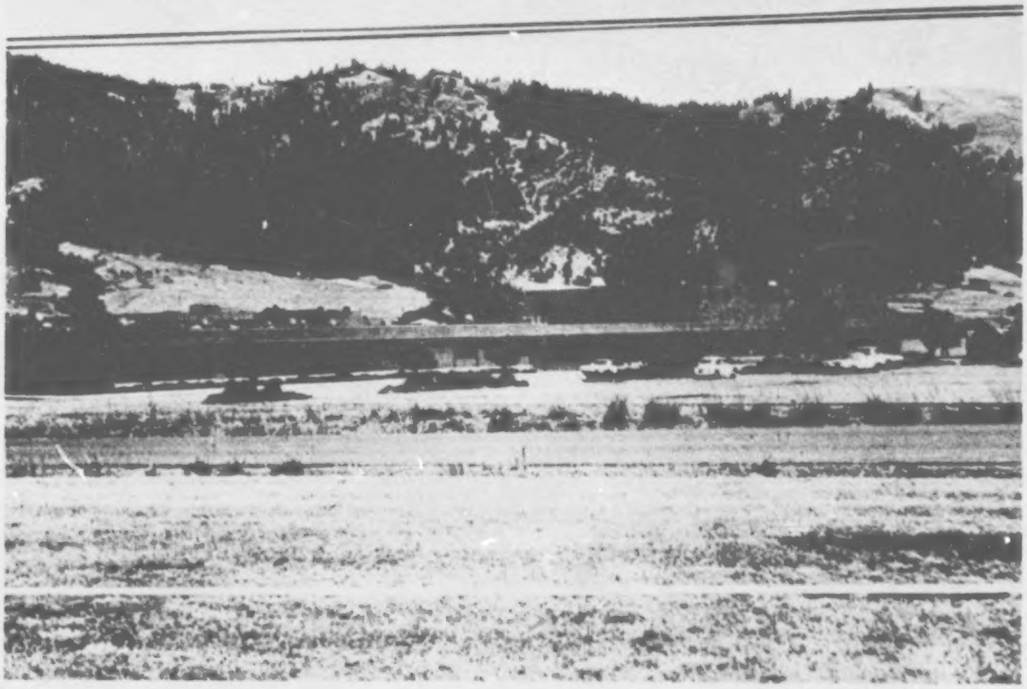

Fig.19. South Umpqua High School, built in 1965.

met is distributed to low tax base school districts in the form of reduced taxes. South Umpqua, which is the poorest school district in the state in terms of assessed valuation per pupil, is a consistent beneficiary of the system.

The total budget approved by the voters in April, 1972, was $2,233,874 or $875 per pupil, not counting capital expenditures or bonded indebtedness. Per pupil cost was $735.70 in the 1969-70 school year and $794.23 during 1970-71.

The school dropout rate has decreased during the last several years from 28% in 1968 to 16% in 1971. Of the 1971 graduating class, 26% took local jobs; the next highest percentage (19.9%) went to a four-year college. The complete breakdown on what members of this class did is shown in Table 3.

TABLE 3

Post-Graduation Activities, Class of 1971

| Activity | Number | Percent |
|---|---|---|
| Four-year college | 29 | 19.9 |
| Community college | 22 | 15.2 |
| Business or technical school | 20 | 13.7 |
| Job locally | 38 | 26.1 |
| Out of county job | 6 | 4.1 |
| Military | 9 | 6.3 |
| Homemaker | 15 | 10.3 |
| Indefinite | 7 | 4.9 |

Source: Letter of Interest, p. 5.

## THE EXPERIMENTAL SCHOOLS PROGRAM GRANT APPLICATION

Despite its low assessed per pupil valuation, the South Umpqua School District has recently received the most positive statements of accreditation from the state Department of Education that the law allows. But the district superintendent continued to search for new sources of funds to upgrade the school program. He first became aware of the possibility of obtaining additional funds for the district through the Experimental Schools program in April of 1972, when a nationally circulated information sheet arrived in the mail. The superintendent, vice-superintendent, and director of federal projects combined their efforts in writing a letter of interest, which was submitted to the school board for approval the following month. They identified four major strengths of the school district in the letter:

- A strong administrative staff, consisting of eight young, committed, and well-trained persons. "The members of this administrative group have played a leading role in educational change in Oregon for the past ten years," the Letter said. "In the late 50's and early 60's their programs for disadvantaged children and for exceptional children, ranging from the mentally handicapped to the gifted, gained recognition nationwide" (op. cit., p. 8).
- Confidence in the district by the taxpayers, evidenced in their "giving more than the state's average of financial support to the schools, although the district is the poorest in the state" (ibid., p. 9).
- Ability to marshal and use educational resources outside the schools (ibid., p. 9).
- Readiness for educational change, because preliminary steps have already been taken, such as needs assessments, staff training, and curriculum development (ibid., pp. 9-10).

In addition, they pointed out that the South Umpqua School District shares with other rural areas several strengths which are derived from the rural character of the area, but which are seldom exploited:

1. The school district is practically ideal in size for flexible approaches to educational change. A minimum of bureaucratic red tape is necessary. A completely open, responsive system where everyone is involved in major and minor decisions is extremely practical.
2. Although small, the school population of 2,300 is large enough to offer a wide range of programs to students and attract many very capable professionals.

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3. Despite their many liabilities, the schools in this area have much untapped potential for contributions to the lives of youngsters. Schools activities form the hub of many youngster's lives, giving some their identity and allowing some, but not enough, to walk the high road.
4. The open spaces and access to the natural environment have educational potential in both cognitive and affective areas that has long been ignored.
5. The small population makes it possible for the entire community to become involved in the individual child's education. A whole constellation of people most important to the youngster, people who can encounter the student in real person-to-person relationships, know the child, his relatives, his friends, and his interests.
6. Size makes experimentation and model construction easier, accelerating the speed of change (ibid., pp. 10-11).

The Letter goes on to list some significant weaknesses of the district:

- Dependence on textbooks,
- Difficulty of obtaining funds for special programs,
- Traditional training of two-thirds of the district's teachers makes innovation difficult, and
- Current programs are poorly articulated. (See Letter of Interest, p. 11).

The character of the larger community also leads to some weaknesses:

1. The rural community is poorly equipped to absorb school graduates. The few who stay for any length of time after graduation secure menial jobs, in mining and lumbering mainly. Yet rural students are poorly prepared to compete in the metropolitan world where more jobs are available.
2. The narrow cultural backgrounds of students and their parents result in poor attitudes toward education and low motivational and aspirational levels. Our present educational format simply does not engage their interest nor does it tap their capabilities and resources.
3. Community life lacks variety generally and the sort of activities that emphasize values, beauty, and feeling exist only at the schools and there, minimally.
4. Opportunities for students to apply learning in areas directly related to their world have remained underdeveloped.

5. The disparity between the langauge spoken by teachers and the language spoken by rural youngsters, coupled with the host of other manifestations of a rural malaise, contributes to many youngsters becoming academic misfits, frustratingly bored with their purposeless existence, agonizingly dissatisfied with their school experience, and intent only on getting out (Letter of Interest, pp. 11-12).

During negotiations, personnel from NIE visited the site, and the superintendent and one school board member visited Washington, D.C. A letter of acceptance was received in June. Teachers who had not left the district for summer school or other activities were requested to participate in planning committees during the summer. A number of patrons of the community were approached for advice and attitudes about the program. Notice of the award of the Experimental Schools grant was announced in the Myrtle Creek Mail and was included in the fact sheet sent to returning or new teachers during August. The award was formally announced to teachers during Orientation Day, the first official work day in September.

Several administrators have stated that they saw the project as an opportunity to accelerate changes which were already planned. They have variously been attracted to the program because they desire to provide an education that meets the needs of the students, they believe they can better the educational system, and they gain personal satisfaction in using their professional training. The administrators of the South Umpqua School District are well read in professional literature, and in recent years, the thrust of teaching techniques has been in the direction of individualized instruction, student involvement, and heightened student interest. The philosophy of the administration which provides the context for the Experimental Schools program is suggested by a quote from Clifton Fadiman in the first issue of the school district publication Update (1973a): "The humanities do not teach the man to become a plumber. They try to teach the plumber to become a man."

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# Chapter IX

# A Social and Educational History of Lead-Deadwood School District

by

William and Susan Firestone

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# A Social and Educational History of Lead-Deadwood School District

Area: 430 square miles. Population(1970): Lead--5,240; Deadwood--2,409. Elevation: Terry Peak--7,077 feet; Deadwood--4,400 feet; Lead--5,280 feet. The school district is located in southern Lawrence County, South Dakota, at latitude 44°21' North and longitude 103°46' West, about 45 miles northwest of Rapid City, 400 miles north of Denver, and 600 miles west of Minneapolis-St. Paul. Major towns are Lead (settled about 1876) and Deadwood (settled about 1875).

## BASIC GEOGRAPHY, GEOLOGY, AND ECOLOGY

### Basic Facts

The Lead-Deadwood School District #106 is located in the Black Hills of South Dakota. Its latitude is 44°21' North and longitude is 103°46' West. The region was first settled in the 1870s during the Black Hills Gold Rush. The two major communities of the district--Lead and Deadwood--were founded in 1876. After a rapid early development, the fate and size of these towns has continued to depend on the gold industry, since Lead is the home of the Homestake Gold Mine, the largest in the country, and Deadwood serves as the mining community's shopping center. The 1970 census showed that Lead's population was 5,240, while Deadwood had 2,409 people. Together with

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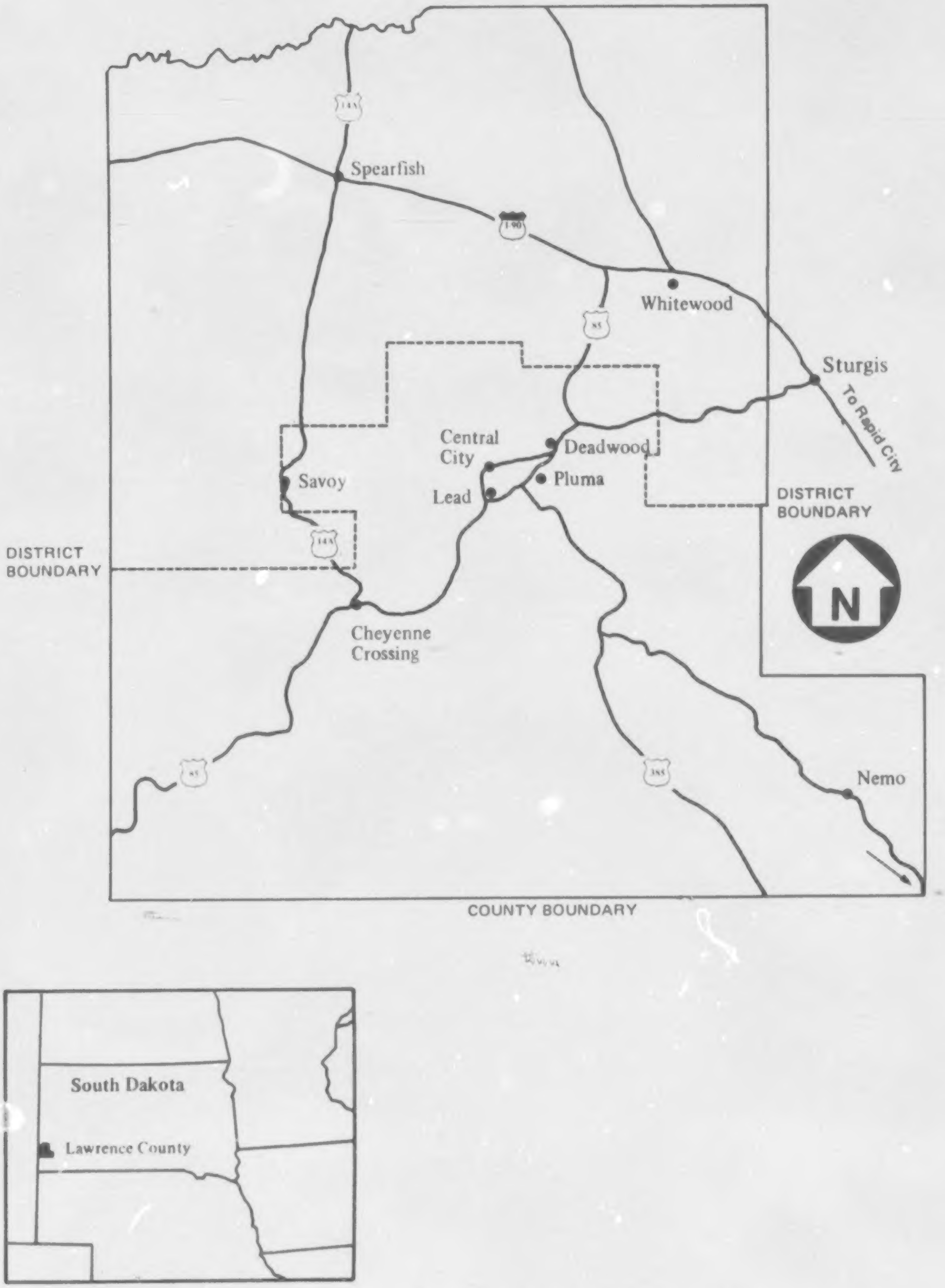
14A
Spearfish
I 90
Whitewood
85
Sturgis
To Rapid City
Central City
Deadwood
Pluma
Savoy
Lead
DISTRICT BOUNDARY
DISTRICT BOUNDARY
14A
N
Cheyenne Crossing
85
385
Nemo
COUNTY BOUNDARY
South Dakota
Lawrence County

Fig. 1. Lead-Deadwood School System District 106, Lawrence County.

Spearfish, 18 miles away, these towns are the urban centers for Lawrence County, South Dakota. The district serves the southern half of the county and includes 430 square miles of mountainous area, most of it part of the Black Hills National Forest. The district is about 45 miles northwest of Rapid City, the metropolitan center for all of western South Dakota, 400 miles north of Denver, and 600 miles west of Minneapolis-St. Paul.

## Topography and Climate

The Hills region is a mixture of the eastern and western parts of the country. The mountains of the area are more like the Appalachian chain than the nearby Rockies because they are rounded and tree covered. Yet, the Black Hills are higher than most of the Appalachians. The plains of western South Dakota are about 3,000 feet above sea level, and the Hills rise to as much as 4,000 feet above these plains. Harney Peak, the highest point in South Dakota, is 7,242 feet high. The highest spot in the school district is Terry Peak, three miles from Lead, which reaches up to a very respectable 7,077 feet. The district itself is the highest in the state. Deadwood is about 4,400 feet above sea level, and Lead is a mile high.

On the other hand, because of the drier climate, the vegetation of the Hills is more typical of the West than the East. In most areas they are covered with forests made up primarily of ponderosa pine (which from a distance do look black). There are many streams and creeks in the area, but no natural lakes. Within the district, however, the small Roubaix Lake provides a setting for outdoor recreation. Three larger artificial lakes just south of the district--Pactola, Sheridan, and Deerfield--offer more popular settings for boating and fishing. The beauty of the Hills and the many opportunities for outdoor activities like hunting, fishing, and hiking in the spring, summer, and fall and skiing in the winter (there are two developed ski slopes on Terry Peak) provide much enjoyment to local residents as well as a boost to tourism, which is the second most important source of income for Deadwood.

The climate of the area is a continental type with large temperature variations between seasons, and often from day to day. While there are no large bodies of water to moderate these fluctuations, they seem to be less extreme in the Hills than in the surrounding plains. The Hills are generally cooler than the plains, but the long periods of sub-zero weather aggravated by extreme winds that afflict the lower regions are moderated in the mountains. Temperature extremes in Lead range from maximums above 90°F in the summer to -20°F in the winter, but averages tend to the cool side. The average annual maximum is about 55° F and the minimum is 34°F. The growing season is 119 days, since the last frost in the spring is usually about May 24, while the first one in the fall comes about September 20. Seasonal temperature fluctuations are summarized in Table 1. The average annual precipitation is 25.41 inches, of which 69% comes from April through September. Average snowfall is about 105 inches, but this amount varies considerably. During the drought winter of 1931-32 only 43 inches fell, while a record snowfall of 223 inches was recorded in 1969-70 (Climatological Summary, 1969).

Table 1

MONTHLY TEMPERATURES AND SNOWFALL

| Month | Average Daily | | Inches of Snowfall |
|---|---|---|---|
| | Maximum | Minimum | |
| September | 69.2 | 44.9 | 1.3 |
| October | 57.6 | 36.0 | 7.3 |
| November | 43.5 | 25.0 | 12.7 |
| December | 35.6 | 17.7 | 14.0 |
| January | 32.9 | 14.0 | 14.3 |
| February | 35.0 | 15.5 | 14.4 |
| March | 40.7 | 20.2 | 21.2 |
| April | 51.3 | 29.8 | 20.6 |
| May | 61.3 | 39.4 | 6.3 |
| June | 71.8 | 48.8 | .7 |
| July | 80.7 | 56.1 | |
| August | 79.2 | 54.3 | |

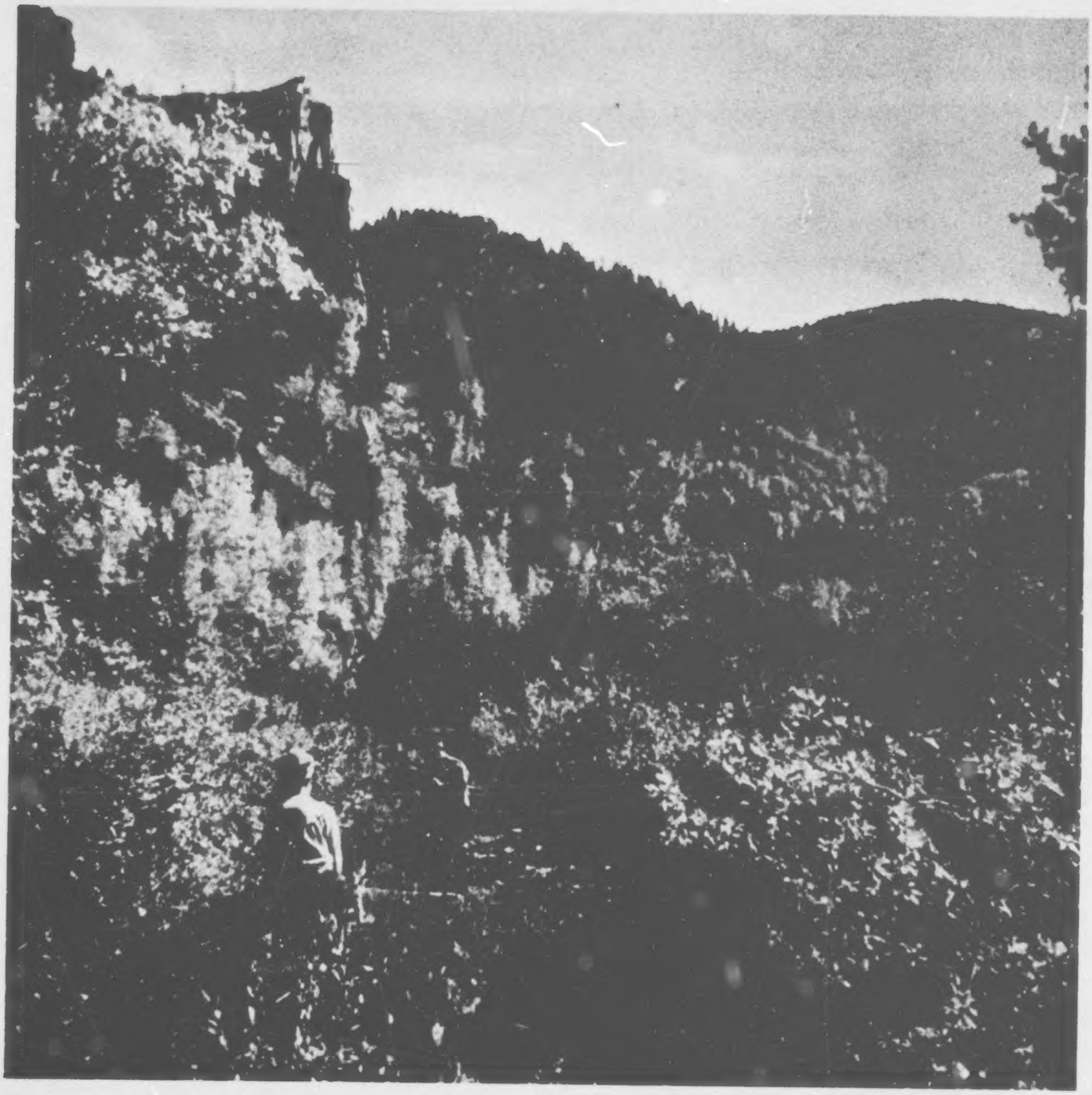

Fig.2. Fishing in the Black Hills.

## Black Hills Geology [1]

The Black Hills are the result of two "doming" or uplift processes and millions of years of sedimentation. The first upthrust took place in the Pre-Cambrian period over 500 million years ago and was the source of the most important metals, including gold, mined in the Black Hills. The molten rock that came up from the center of the earth cooled and hardened as granite, but did not break through the surface. During the Cambrian period, the Hills were covered by an ocean for the first of several times. During these immersions, large layers of sandstone, shale, and limestone were laid down. Throughout these layers were scattered upthrusts of granite left over from the first doming process. Finally, about 60 million years ago, the land dried up for the final time and the 20 million-year period of upheaval that created the Rocky Mountains began. At the same time a gradual process of doming began again and raised the Hills as much as three miles into the air. Forty million years of erosion have reduced the Hills to their current levels.

The mountain range that was created through this last uplift forms an ellipse that is about 100 miles long and 50 miles wide. Its central axis runs almost due north and south, and two-thirds of it is found in South Dakota, with the rest in Wyoming (See Figure 3). Surrounding the central hills and forming a barrier between them and the plain is the Great Hogback. This formation rises gradually from the surrounding plains and drops steeply into the next section--the Red Valley. Visitors who approach the Lead-Deadwood School District from Rapid City drive through this valley on I-90 until they reach Sturgis. The Centennial Prairie between Deadwood and Spearfish is also part of that formation. The inside

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[1] All geological information comes from E. P. Rothrock, *A Geology of South Dakota: Part I, The Surface*, and A. N. Williams, *The Black Hills*.

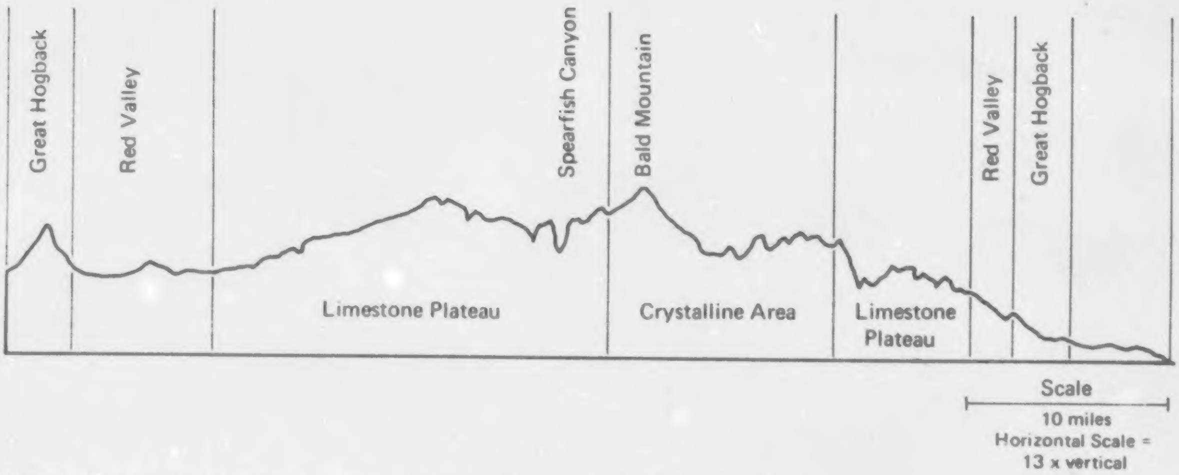
Great Hogback
Red Valley
Spearfish Canyon
Bald Mountain
Red Valley
Great Hogback
Limestone Plateau
Crystalline Area
Limestone Plateau
Scale
10 miles
Horizontal Scale = 13 x vertical

Fig. 3. Topographic cross section of the northern Black Hills near Lead.

edge of the valley is made by the Limestone Plateau which rises to levels as high as 7,100 feet in the western Hills as one approaches their center. This area is the source of many caves, some of the largest of which, like Wind and Jewel Caves in the southern Hills, have been made into national monuments. It also contains many beautiful canyons such as Bounder Canyon, through which one approaches the school district from the east, and the largest of all--Spearfish Canyon--just west of the school district. The fourth and central section of the Hills is the Crystalline Basin. Although it is lower than the inside rim of the Limestone Plateau at many points, it is also the location of the highest peaks, including Harney and Terry. Lead and Deadwood are also found in this zone. This central region consists of the igneous materials from the first doming process and holds most of the metal-bearing rocks and ores.

Gold has been the most important metal commercially in the Black Hills, but other metals have been found as well, including silver, lead, zinc, tin, copper, iron, tungsten, and manganese.

Some mica has also been found in useful forms. Silver is often found along with gold, and many of the local gold mines including the Homestake have extracted that metal from their ores as part of their regular refining process. Silver, along with lead, was mined exclusively in earlier times at Galena and Carbonate Camp. For some time there was also a commercial tin mine at Tinton (west of Lead and the school district, near the Wyoming border).

## Ecology

In addition to gold and other metals, the forest is an important natural resource of the Black Hills. The principal trees are conifers, and the most common of these is the ponderosa pine (Pinus ponderosa). In most areas it is the climax species. Some limber pine (Pinus flexilis) and lodgepoles (Pinus contorta) also exist in the Hills, but there are probably none of these in the school district. The western white spruce (Picea glauca albertiana), however, is often found along stream bottoms and on cool northern slopes, and occasionally occurs in pure stands of limited extent on the Limestone Plateau. Two species of juniper, the Rocky Mountain juniper (Juniperus scopulorum) which grows on dry sites in the foothills, and the ground juniper (Juniperus communis) which occurs as a shrub one to three feet high throughout the timbered portions of the Hills, are common in parts of the Lead-Deadwood District.

A variety of deciduous trees is found in the Hills. The most common of these is the quaking aspen (Populous tremuloides), but the paper birch (Betula papurifera) occurs frequently in moist sites, and the burr oak (Quercus macroarpa) is found on the lower slopes within the district (Price, 1952).

There have been a number of changes in the local forest ecosystem since the first settlement of white men in the region.[2]

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[2] The information on changes in wildlife and forest comes from the U.S. Forest Service, "Little Spearfish Area Plan."

Photos taken by the Custer expedition in 1874 show that the forest was broken by many more parks or meadows than is now the case. Timber stands in the Custer pictures show a balance of mature and younger trees. Pictures of Lead shortly after it was settled show that the peaks to the west of town, where gold was first discovered, were then grassy and devoid of trees. The valley where Deadwood is now located was choked with downed trees--hence its name. While the reason for the number of dead trees in that area is not clear, it could have recently been subjected to an epidemic of the Mountain Pine Beetle similar to the one that is currently doing much damage to the Hills.

The coming of the white man brought two changes to the Hills. The first is the control of fires. Large fires still do occur, such as the one that completely encircled Deadwood in 1959 and almost destroyed the town, but the number of fires may actually be smaller than previously. Naturally occurring fires seem to have helped thin the forest, created the parks that are now overgrown, and helped maintain the balance of older and younger trees. The second change is the development of logging, especially of the ponderosa, but also of some spruce. Because most of this area is part of the Black Hills National Forest and has been under federal control since the turn of the century, clear-cutting is avoided. Still, these lumber operations have helped create very thick stands of second growth timber. Some people argue that the Forest Service's fire prevention policies have added to the crowding of the forests. Some of the thickest areas are called dog hair stands because they are as thick as the hairs on a dog.

These thick stands have a number of negative consequences. The most important problem in the eyes of many is the current beetle epidemic. Since these bugs will attack and kill any unhealthy ponderosa, an overcrowded stand provides an ideal setting for them because the resistance of the trees within it is severely reduced. The current epidemic is the third of the century. The others occurred between 1907 and 1912, and in the late 1930s. Both times the Forest Service allowed wholesale cutting of diseased timber and charged loggers extremely low fees for the "bug wood" that was harvested, much of which is salvageable when cut soon enough. This logging and the natural death of unlogged trees thinned large areas of the forest. The cycle is currently being repeated, but some observers believe the current epidemic is more severe than the two earlier ones.

The thick stands may have also lowered the levels of streams in the area, since almost no ground water leaves overgrown areas. In addition, they have reduced the wildlife population in the area, since nothing but trees (and beetles) can live where the trees are too dense.

To alleviate the problem of overcrowding, the Forest Service has begun to encourage commercial thinning of the forests. The "roundwood" that is removed is too small to be cut into lumber, but it has become the basis for post and pole production. One of the post and pole mills that serve the district is in nearby Whitewood. Some of this smaller wood is sent to Minnesota and Wisconsin, where it is used for pulpwood in paper production, but transportation costs are such that this outlet for smaller wood may be only a temporary one. The largest portion of saw timber removed from Black Hills' forests is used in the area for mine timbers.

The coming of the white man has also had a great impact on the distribution of wildlife in the area. The first people to arrive in the Hills found that deer and elk were plentiful. Most of the early prospectors in the area lived on the game they shot themselves. A number of birds were found as well, including wild turkeys. The Custer expedition found both grizzly and black bears in the area, but the only fish native to the streams of the Hills were suckers. Bears were almost extinct in the area by the turn of the century, and the elk herds have been severely diminished. Current estimates of the number of elk in the Hills range from 50 to 200, but it is doubtful that any can still be found within the boundaries of the school district. Other game animals, including deer, turkeys, and grouse, only exist because hunting is limited by state law.

On the other hand, the variety of aquatic life has greatly increased. Rainbow and brown trout are stocked by the South Dakota Department of Game, Fish, and Parks and by the U.S. Fish and Wildlife Service. Brook trout (and in some areas browns) spawn successfully in the Hills streams; rainbows do not and are used largely for stocking the lakes. Ponds in the district may also contain largemouth bass, green sunfish, bluegills, bullheads, and other warm water species.

The mining industry has also had a lasting impact on the landscape of the Hills, especially within the school district. Scattered throughout the area are holes in the ground that are often quite large, along with deserted cabins and skeletons of old stamp mills that mark the sites of deserted mines. Two slag heaps just east of Deadwood show where ore milling and refining operations were located in earlier days. The two most striking effects of mining activity, however, can be seen at the open cut and in Whitewood Creek. The open cut is a great gash in the mountainside above Lead that is 4,300 feet long, 1,300 feet wide, and 500 feet deep; the gash opened up over a 25-year period in the early part of the century (Homestake Engineering Office, 1962). This hole is the site of some of the earliest underground mining in the area (and also the original center of the town of Lead). Inadequacies in early means of shoring up the slopes from which the gold was removed and the failure to fill them in after mining was completed caused the whole area to subside. The subsidence forced the removal of mining operations to the other side of the valley where they are now housed; the business center was also forced to relocate to its present site.

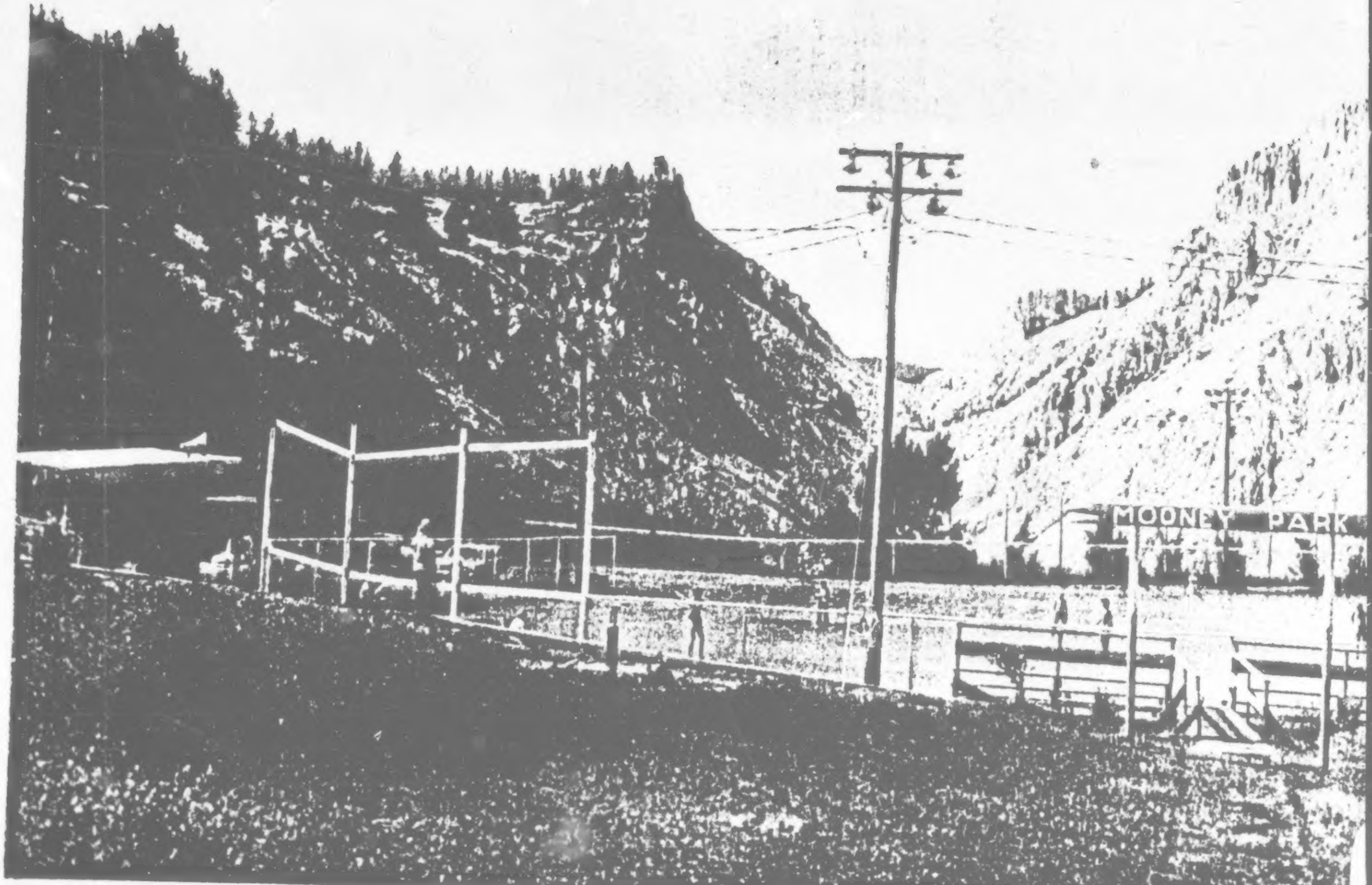
MOONEY PARK

Fig.4. Open cut: Lead.

Both Lead and Deadwood are part of the Whitewood Creek drainage system. The creek flows down through Pluma and Deadwood before continuing on to the Belle Fourche and Cheyenne River, which in turn enters the Missouri behind the Oahe reservoir. Gold Run Creek, which originates in Lead and enters Whitewood Creek in Pluma, is the recipient for the tailings from the Homestake Mine. These tailings are a fine, grey colored silt, and all of the creeks and rivers downstream of the mine to as far as Bridger, South Dakota, over 200 miles away, are the color of that silt. To add to the problem, both Lead and Deadwood dump their sewage wastes into the creek. The situation was worse before 1971, when the mine discontinued using mercury in the later stages of its refining process. Studies of walleyes and northern pike taken from the Cheyenne River arm of the Oahe reservoir showed abnormally high concentrations of mercury in the fatty tissue of the fish, and there was concern that this problem would spread to all sections of the reservoir (Stewart & Thilenius, 1964). Plans for creating new ways to dispose of the wastes that are now dumped into these creeks are currently under consideration, and this problem may be eliminated in the coming years.

# FROM THE GOLD RUSH TO THE TURN OF THE CENTURY

## Introduction

In 1874, there were practically no permanent residents in the Black Hills, but only a year later the population was 15,000. By 1876, every town that exists today in southern Lawrence County had been founded, and most of them were considerably larger than they are now. In addition, there were many camps--including Gayville, Blacktail, and Two Bit Gulch--that have since become little more than crossroads with only a few homes. The rapid development of the area was a result of the Black Hills Gold Rush. Gold rushes are short-lived, and mining camps are notoriously unstable. Rodman Paul (1963) has suggested that most mining camps followed a standard life cycle. The discovery of gold or silver in a little known area that was hard to reach led to a boom, and disorderly crowds would come rushing in. After 1849, the early leaders might well be veterans of previous excitements, but the bulk of the population would be inexperienced and likely to suffer disappointment and hardship. Where there was enough precious metal to be worthwhile, production would develop rapidly based on placering and lode mining of the easily worked upper parts of veins. A chaotic society would develop that would include gambling halls and brothels as its best remembered and most colorful institutions. Speculation in mining claims would be rife and often tainted with deceit. Murders would be common and lynch law not unknown. The period of greatest production that marked the high point of this society would rarely last more than a half dozen years, after which the town would go into a decline that often ended in its complete desertion, with nothing but a few buildings to show where it had been.

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While the history of the Lead-Deadwood area began in this typical fashion, it did not follow the mining camp cycle to its conclusion. Within a few years the major towns in the area began giving promise that they would be atypically permanent; by 1900 a stable society had been created in the area based primarily on a single industry, large-scale gold mining, and a single company, the Homestake Mine.

## The Black Hills Gold Rush

The Laramie Treaty of 1868 placed the Black Hills in a large Indian reservation that included much of Wyoming, western South Dakota, and northwestern Nebraska. This area was off-limits to the white man, and the Sioux firmly resisted any encroachment on their territory (Paul, 1963, pp. 9-10). Although the Sioux were Plains Indians and never lived permanently in the Hills, they had a two-fold interest in preventing a white invasion. First, to get to the Hills it was necessary to cross the best grazing ground on the reservation which would inevitably ruin the buffalo hunting that was the basis of Sioux society. Second, the Hills had special religious significance to the Indians as the presumed resting place of the Great Spirit (Spring, 1948, pp. 39-40).

In the early seventies, the federal army honestly performed their job of keeping white settlers off the reservation, but they did so in the face of mounting pressure to open up the area. This pressure came from many sources, one of which was the persistent rumor that there was gold in the Black Hills. Indians and early explorers like Jim Bridger had brought back reports of gold in the Hills, but these were not always believed. Still, some prospecting was done in the area before the gold rush period. The message on the Thoen Stone found near Spearfish in the 1880s indicates that in 1833 seven men found all the gold they could carry nearby but were killed by Indians before they could leave. Another party managed to get back to Cheyenne in the 1860s with gold that they said came from the Black Hills, but they headed north before a party could be readied to follow them and were never seen again. Because of the depression of 1873, many people wanted to believe these rumors and reports and hoped that the Black Hills would help them make the strike that would recoup their losses.

There were other pressures as well. Texas ranchers wanted to open up the northern Plains for their cattle. Merchants in Yankton and Bismarck in Dakota Territory as well as Sidney, Nebraska and Cheyenne realized that opening the Hills would increase their own business. Politicians in Yankton, then capital of the Dakota Territory, thought that settling the Hills would increase opportunities for patronage (Spring, 1948, p. 41; Lamar, 1956).

In the summer of 1874, Brevet Major General George Custer was ordered to make a reconnaissance expedition of the Black Hills, partly to investigate rumors about gold and partly to locate a site for a military fort. Custer left Fort Abraham Lincoln near Bismarck on July 2, with 12 companies of soldiers, 110 wagons and miscellaneous personnel including a few miners and a geologist. On July 30, members of his party discovered gold on French Creek near Harney Peak in the southern Hills.

The news of the Custer expedition's findings was enough to set off an invasion of the Hills in spite of the risk of Indian attacks and repeated injunctions by the army to stay out of the area. The Gordon Party was the first group to enter the region, arriving on French Creek on December 23, 1874. Only bad weather allowed them temporarily to elude army patrols, but they were brought out in April of the following year by a cavalry troup from Fort Laramie. As more and more people tried to get into the Hills, it became almost impossible to keep them out. When the federal government's attempt to negotiate a purchase of the area from the Sioux failed, efforts to halt in-migration ceased. By December of 1875, it is estimated that 15,000 people were in the Black Hills, primarily near French

Creek in the newly created town of Custer.

Although most prospectors headed for and stayed in the southern Hills where the first gold had been discovered, a few began moving north. Deadwood Gulch was first reached in August, 1875. By winter, word reached people in Custer that the northern diggings were much richer than those in the south. Heavy snows held up the rush, but as the spring of 1876 arrived, Deadwood jumped from a population of 50 to 10,000 (Spring, 1948). Custer was practically deserted. While Deadwood was the center of the northern rush, many other towns were started at the same time. To the east was Crook City, which was later moved and renamed Whitewood just up Whitewood Creek to the west of Deadwood were Gayville, Blacktail, Central City, and others. The Central City area had a population of 3,000 (Stewart, 1972, p. 260). South of Central City on the almost inaccessible Gold Run Creek, three camps that were later to become the city of Lead were also started and rose to a combined population of over 1,000 before the end of the year. To the north, Spearfish was started as an agricultural area serving the miners.

When the gold rush began, there were serious human and geographic impediments to travel to the Deadwood-Lead area, but these declined significantly in the following 15 years. The major human obstacle was that the region was part of the Indian territory. The rush to the Hills caused the Indian war that led to General Custer's death at the Little Big Horn in Wyoming in 1876. Later that summer, Crazy Horse's band staged a raid on ranchers in the Centennial Valley just a few miles from Deadwood; throughout that year, bands of Indians made occasional raids on groups heading into the Hills and on stage coaches and their stations. Early in 1877, a settlement was reached in which the Indians sold the Black Hills, which then became part of the Dakota Territory. While the Indian troubles subsided, the following years saw numerous attacks on travelers by outlaws.

Even after the human problems were eliminated, the physical problems remained considerable. Yankton, the territorial capital, was over 300 miles away. The nearest jump-off points for the Hills were Bismarck, Ft. Pierre, Cheyenne and Sidney, Nebraska. Ft. Pierre, which was nearly 150 miles away, was the closest, but the others were better served by the railroads at first and managed to corner large shares of the commerce within the area. Besides the distances involved, the Hills proved to be an engineer's nightmare, a situation which was exacerbated by the fact that the first road builders had no engineering background.

Initially there was no organized means of entering the Hills, so people walked or came in wagon trains. By the spring of 1876, however, a stage coach line was running from Cheyenne to Deadwood. As routes were perfected, it was able to make the 300-mile trip in 48 hours, although wet weather could lengthen the time by as much as 50% (Spring, 1948, p. 169). In addition, the buffeting that the coaches underwent meant that such a trip required a good deal of stamina. Heavy freight was brought in by bull teams. These teams consisted of 14 oxen and could carry up to four tons, but they averaged an incredibly slow pace of about one mile per hour. Even then they were not always reliable. The bull team that brought in the Homestake Mining Company's first big stamp mill got caught in a late spring snowstorm which caused considerable delay and the death of the whole team.

As in previous gold rushes, migrants came to the Black Hills from all over the country, and they included a fair share of tenderfeet. Still, one of the more remarkable characteristics of this rush, perhaps because it was the last one in what later became the 48 states, was the number and influence of people who had had previous experience in mining camps. The most successful early prospectors were the ones who had learned their trade in other areas, especially Montana, before coming to South Dakota. The miners were not the only ones with experience in other mining locations. Those who had experience with other gold rushes included gamblers, madams, missionaries, theater operators, merchants, and politicians. Sol Star and Seth Bullock moved their hardware store from Helena to Deadwood, and Bullock, at least, continued a political career that had begun when he had been elected sheriff of a Montana county (Keller, 1972). William Clagett, who had known Mark Twain when he began his career as a lawyer and politician in Nevada in the early 1860s, moved to Montana before he arrived in the northern Hills (Paul, 1963). Saloons, brothels, and gambling halls, which had become a regular part of mining camp life since 1844, blossomed during Deadwood's first summer. Their owners, who knew that a new gold rush would be a source of large profits, seemed to be used to moving quickly to new boom areas. For example, in July of 1876, gambling operations that had previously been located in Butte, Montana (another gold area) and Chicago resettled in Deadwood.

According to Paul (1963, pp. 1[illegible]-181), the arrival of so many men seasoned in mining camp life had two effects. First, it contributed to a self-conscious nostalgia. People were aware that they were continuing the glamorous tradition that began in California in 1849 and had been continued in Colorado, Nevada, and other Western territories; one of the popular songs in early Deadwood was entitled "The Days of Forty-Nine." Second, previous experience allowed the Hills area to develop quickly. Techniques of mining and a body of mining law had developed since 1849, and the earliest entrepreneurs--whether grocers or madams--knew the ins and outs of mining camp business. Thus, as early as 1878, the Deadwood-Lead area was beginning to look well established.

On the other hand, the early immigration contributed to the unsettled, violent nature of Black Hills camps in several ways. First, most of the early immigrants were more interested in making a quick fortune and leaving than in finding stable employment in the

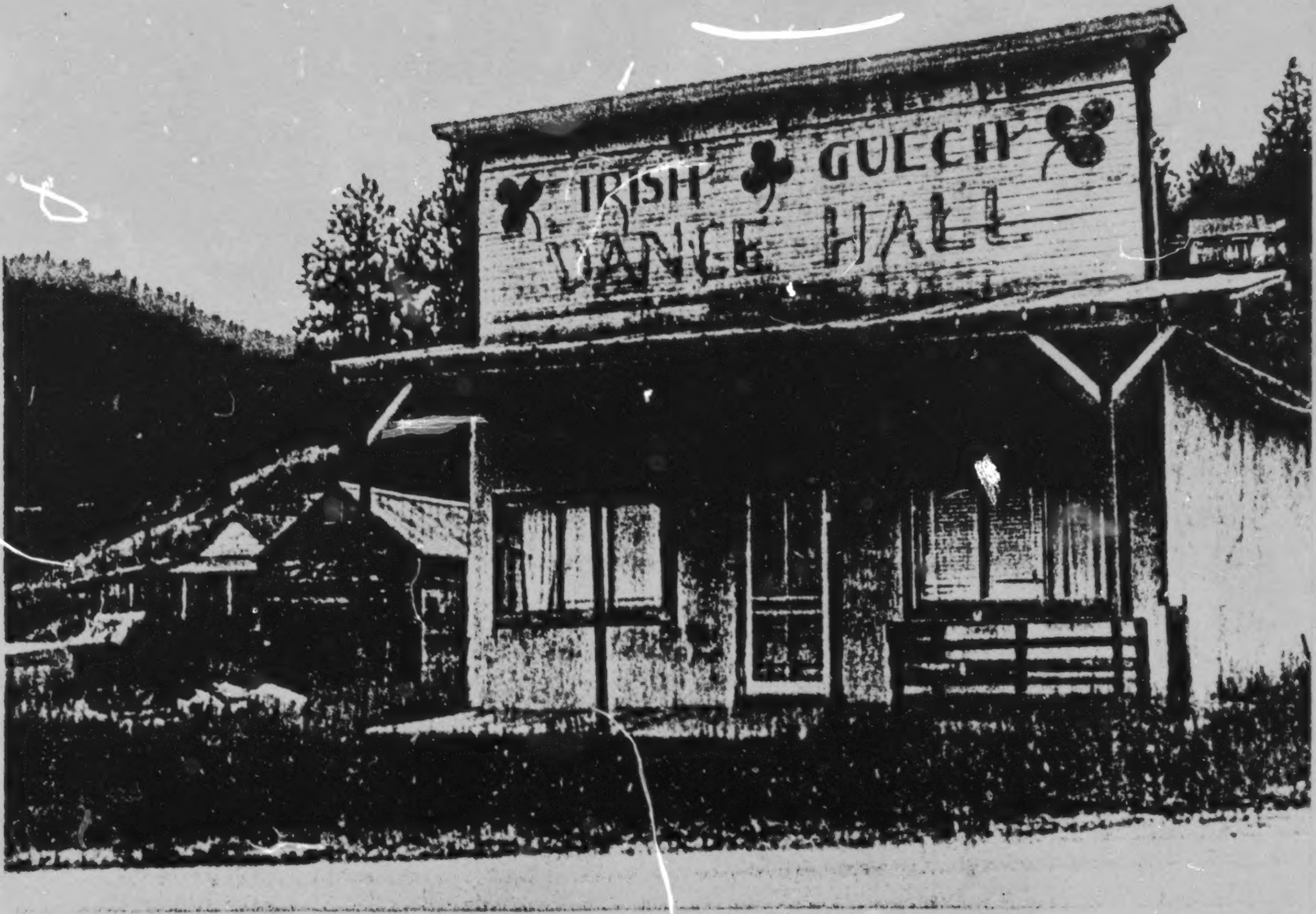
IRISH GULCH
DANCE HALL

Fig. 5. Rochford, an early mining camp.

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area. Many of them had become unsettled by the Civil War and over a decade later still had not put down roots. Others had lost their jobs during the depression of 1873. Furthermore, the immigration of men who had experienced previous gold rushes was a mixed blessing. While it helped contribute structure and expertise to the new camps in the Hills, it also included a "consignment of thieves and thugs" that had made the early days violent (Paul, 1963, p. 166). In addition, the first immigrants to the Hills were almost all adult males. There were only seven women in Lead in the summer of 1876. Paul (1963, pp. 164-165) suggests that the lack of "respectable" women in a camp contributed to its violence.

The early mining camps were characterized by their temporariness, their emphasis on getting rich quick, and a laissez-faire approach to law and order that minimized individual restraint. The kind of social life that developed, while colorful and exciting, was too violent and unsettled to provide the basis of a permanent society. Deadwood was the center of action in the northern Hills in 1876, and it has been described as follows:

> Sunday was the busiest day of the week, and as the miners and prospectors from the tributary gulches and the outlying districts usually visited the town on that day to procure supplies and in hopes of getting mail from the states, every Sabbath saw Main Street crowded with men. In the throng the buckskin clad hunter jostled the dandified gambler and the pilgrim from New England. On every side was heard the sound of the hammer and saw, in the construction of new buildings...On one hand could be heard the impassioned call of an itinerant minister of the Gospel... In close proximity would be a loud-voiced gambler crying his game (Brown & Willard, 1924, pp. 419-21).

Mining camp life was definitely violent. The most frequently recounted event in the first year of Deadwood's history is the murder of Wild Bill Hickok, apparently by a group of people who feared that he would "clean up" Deadwood as he had the towns in Kansas where he had been City Marshal (Keller, 1972, pp. 55-58). His murder was not an isolated incident. An editorial in a Lead paper in March, 1878 mentions that there were 40 murders in the Black Hills in the previous 16 months, and only three convictions; in the following month, the same paper recorded four more murders and a gun battle between two men and a woman that just missed adding to the number of killings (Fielder, 1970, p. 54). Disputed mining claims often led to murders, for the stakes were high and legitimate means for settling disagreements were lacking. The Keets and Aurora mines, for instance, were two small operations near Central City with overlapping claims. In August of 1877, Cleaphus Tuttle, manager of the Aurora, tried to blow up the Keets operation. Keets got his men out before the explosion; in the gun battle between the two groups that followed, Tuttle was killed (Stewart, 1972, pp. 237-240).

To these murders may be added the many robberies in the Hills that occurred during the period. Stagecoach holdups occurred so frequently that they came to be counted on as a regular hazard of doing business (Spring, 1948). Still, with all the problems that arose in this area, the crime and violence never became as bad as in the Montana gold camps, where vigilante committees became an absolute necessity.

Other aspects of the unsettled and unsettling nature of mining camp life were less dangerous and violent. For instance, speculation in mining claims was rampant and uncontrolled, and it was carried out by men who ranged from out-and-out swindlers to incredible optimists. Another example of the chaotic nature of life in the area is that Lawrence County produced more cases of insanity requiring institutionalization during its first three years than all the rest of the Dakota Territory (Schell, 1961, p. 200).

Mining camp life was not entirely without law, however. Since the California gold rush, a Western mining culture including an indigenous form of mining law had developed, and this was carried from camp to camp by the veterans of previous gold rushes. One of the first acts that was carried out when a new area was opened up was the formation of a mining district. These districts were formed even when the area was illegally settled. Before the cavalry brought the Gordon Party out of the Hills, it had already started such a district. Later, districts were formed in Custer and Deadwood. While such districts might formally set up rules for everything from water rights to the naming of streets, the emphasis seemed to be on regulating mining claims. In this sphere, the district would act more as a court than a legislature. When a claim was violated, all members of the camp would meet to hear the case, render justice and then disband. Enforcement of a decision was also handled by the total group (Lamar, 1956, pp. 155-159).

The mining districts were moderately useful in the very first days of a boom area which was peopled primarily by a small, like-minded group of experienced miners. As more people entered the area with a greater variety of approaches to the law, these districts broke down, and it became difficult to support any general form of government. For a time in 1876, Deadwood was governed by a health commission which had been formed to combat an epidemic and which then took on other functions to fill the void left by a lack of general government. Referring to a somewhat later period, a Deadwood resident said, "We start a new city government every two weeks and bust one up every week--if there is any" (Lamar, 1956, p. 161).

Furthermore, early mining law tended to prolong disputes in later years as the first prospectors were replaced by big time developers and their lawyers. The earliest codes were loosely drawn, and they were not updated later as conditions changed. In addition, until the federal government arrived and took hold, there were inadequate facilities for recording claims and keeping records. As a result, important claims were often settled on the basis of fallible memories and perjured testimony. Finally, the Western mining law made an important deviation from all previous mining law by declaring that the sub-surface boundaries of a claim followed the vein rather than descending straight down from surface markers. This interpretation led to a good deal of conflict because of the problems involved in predicting where a vein would go or in tracing it, and thus provided a field day for lawyers (Paul, 1963, pp. 159-164).

Another obstacle to the enforcement of law in the early Hills camps was that the central government for the area was corrupt and inefficient. The character of such government in the post-Civil

War era was set during the Grant administration--notorious for its incompetence and corruption. Territorial government had the following characteristics:

1. The territories were used as a major source of patronage by Congress, so territorial officials came from outside the area, knew little of its problems, and were often incompetent.
2. Congressional rule became thorough and arbitrary. One of the major characteristics of this rule was that it effectively kept the territories from becoming states so that patronage could be controlled from Washington.
3. Administration by the various executive departments was lax and inefficient.
4. The territorial system was agriculturally oriented, so neither Congress nor local officials had experience with or understanding of the problems of governing mining areas (Lamar, 1956, pp. 18-20).

Like other territorial governments, the Dakota Territory government in Yankton was not prepared to deal with the special problems of law enforcement and justice that arose in the Black Hills.

The contribution of territorial government to the disorder and lawlessness of the mining camps is pointed out by a comparison with gold rushes in the British colonies. Veterans of American gold rushes made their way to mining areas as far away as Australia and New Zealand. While a certain amount of gambling, drunkeness, and petty uproar was found in these areas, serious crime was repressed by colonial government. Unlike the American mining areas where there were often few or no legal representatives of the central government, provincial authorities in the British colonies appointed Gold Commissioners and quickly sent them out to the diggings with small police units. Really serious disturbances were put down by troops. This approach to government was more authoritarian than what was found in the Black Hills or elsewhere in the United States, but it was accepted by both British and Americans subject to it and was more effective in guaranteeing the security of life and property (Paul, 1963, p. 168).

The differences between the Yankton officials and the miners quickly became very important. The territorial officials were interested primarily in extending their opportunities for patronage and profit to the offices that would open up in the Hills. They might have been expected to find some common understandings with the professional politicans, the Bullocks and Claggets, who came to the Hills from other camps. However, these local politicans were sensitive to the wishes of their constituents, who wanted a government to mediate disputes, protect property, and otherwise be unobtrusive. Furthermore, the officials from Yankton were Republicans, while most miners were Democrats.

These differences quickly led to serious conflict. There were a number of efforts in Congress (instituted by Hills residents) to remove the region from the Dakota Territory and make it a new one either by itself or in combination with other mining regions farther west. None of these attempts succeeded.

Another area of conflict concerned the naming of local officials. In spite of requests from a host of local Republicans, John Pennington, who was governor of the Territory in 1877, filled almost every vacancy with Yankton people. Perhaps in an attempt to maintain control of the area, he also placed the seat of county government in Crook City instead of in Deadwood, which was the demographic center of the area. A wave of protest resulted, and by fall Judge Granville Bennett, leader of the Hills Republicans, declared that the governor's appointments were invalid and an immediate election was in order. While preparing for the election, the Republicans found the name of their organization too repulsive to local voters because of its link with Yankton and ran instead under the title, the "People's Party." When the organization caucused to make nominations, the Yankton faction was left out entirely and all nominations went to local men. The election that followed was noteworthy for its mudslinging and corruption. Competition was most intense for the offices of sheriff and judge, which were most important to the property-conscious miners. When the dust cleared, the Democrats, who were more numerous and had bid highest, were the victors, and the county seat was removed to Deadwood (Lamar, 1956, pp. 162-165).

This election helped set the pattern for the relationship between the Hills and the territorial government. On the one hand, it gave the mining area some power in territorial politics. Later, a three-way sectional struggle between the southeastern area, what later became North Dakota, and the mining region would develop. While territorial and later state politics were always predominantly oriented towards agriculture, the Hills were able to protect their own interests fairly successfully. In fact, shortly after the 1877 election, Judge Bennett became the territorial delegate to Washington (Schell, 1961, p. 197). On the other hand, the placement of Hills people in county offices helped legitimate territorial and local government in the eyes of the residents of the area. Even though the Hills residents accepted this government, the contribution it made to the growth of order and stability in the region seems to have been minimal.

The actual gold rush period in the Lead-Deadwood area was fairly short. Watson Parker (1966) suggests that it ended with the Deadwood fire of September, 1879, when the whole business district burned to the ground. The men who reconstructed the town, he says, were "no longer casual miners, but solid men of business" (p. 198) who built in brick for permanence. By that time, forces were working to create a more lasting society, and they would predominate more and more as the years rolled by.

## The Growth of the Homestake Mine

The growth of the Homestake Mine broke the typical short-term life cycle of the mining camp that Paul (1963) described and allowed the development of a relatively permanent mining industry in the Deadwood-Lead area. Black Hills gold extraction began just as it had elsewhere, with placering methods which were designed to take gold dust and (in especially rich deposits) nuggets from the gravel banks of stream beds and from the surrounding gulches. Because of the easy accessibility of the gold, placering operations required little capital or elaborate organization, and only one or two men to operate the mine (Schell, 1961, p. 144). It has been estimated that from $3-4 million worth of gold was taken out of the Deadwood area through placering techniques. Nevertheless, the work was hard, and while some men made a great deal of money, many had to be content with $10 a day or less (Schell, 1961, p. 146). Furthermore, placering is wasteful and cannot be carried on indefinitely.

In fact, by 1880, placering had given way to lode mining or direct extraction from the earth as the main source of gold recovery in Deadwood and Gold Run gulches. Many of the earlier prospectors, seeing the riches available in the creeks, reasoned that they might do better still if they sought out the original source in the hard rock outcroppings high in the hills. Among these were Moses and Fred Manuel, who staked out the original Homestake claim and who were typical of many of the more experienced prospectors in the Hills. The Manuels were born French Canadian and grew up in western Minnesota. Moses was not quite 20 years old when, in 1867, he went out to Montana to join his older brother. There they placered, located quartz mines, and built an arrastra--a crude device for crushing and refining gold ore. Together they tried prospecting in Utah before they split up and Fred went back to Montana. Subsequently, Moses searched for gold in Arizona, the Mojave Desert of California, southern Nevada, Alaska, and northern British Columbia. He was ready to start out for Africa when he heard about the Black Hills gold rush. He then went back to Montana to find his brother, and the two of them set out for the Hills. On a hill above the present city of Lead, the Manuels located three good claims--the Homestake, Old Abe and Golden Terra--which they mined through open cuts. To refine their ore, they built an arrastra and later a ten-stamp mill. The Manuels never really had the capital, however, to develop a large scale mining operation, so in June of 1877 they sold their Homestake claim for $70,000 to an agent of a combination headed by George Hearst, the father of William Randolph. The other two claims were sold for a total of $80,000 to other buyers. Although the money they made on the sale of the claims gave them a large enough stake to return to Minnesota, marry and settle down, the Manuels eventually headed back to Montana, where they prospected and worked mines for many years. In fact, Moses was killed in a mining accident in 1905 (Paul, 1963, pp. 183-184).

Prospectors like the Manuels made their money by locating mines and then selling out either to speculators or to serious mine developers like Hearst. They did not have the capital to take the risk of developing their claims on a large scale. The development they did was primarily to prove to buyers the value of their claims. It is doubtful, in fact, that most prospectors got as far into milling and refining as the Manuels did. Instead, they had their ore refined in privately operated custom mills, of which there were at least 21 in Central City alone in 1877-78 (Stewart, 1972, p. 236).

As a result of the sale of their Homestake claim, the Manuels did quite well compared to most prospectors. However, as was always the case, the big profit was made by the group that put up the money to develop and expand the claim. This group all lived in San Francisco. It was headed by George Hearst, who had made his first fortune in Nevada silver mines. The other major investors were James Haggins of Wells Fargo and Lloyd Tevis, who was known as a conservative investor in mining operations. The same combination later purchased the Anaconda in Montana, the largest copper mine in the United States.

The owners of the Homestake faced both technical problems and battles for control as they developed their mine. The technical issues stemmed from the nature of the Homestake vein. The end where the first discoveries were made is in the mountains at the north end of the city of Lead. From there it runs through the city, heading gradually to the south and downwards thousands of feet below the surface. The ore at the top of the vein was quite rich. Some that was taken out of the early mines was worth $20.00 per ton at the 1876 gold price. Farther down, the ore continues to be unusually plentiful but very low grade. Thus, the two major technical problems were those of finding ways to extract ore from great depths, and of separating minute quantities of gold from large amounts of rock with a minimum of waste.

Early mining was hard and dangerous work. The first managers of the Homestake implemented the square-set stoping method first employed in Hearst's Nevada mines. The stopes or excavations from from which the ore was removed were cut from the bottom up and filled with hollow cubes of mortised and tenoned timbers. Because some stopes might be several hundred feet high, the danger of cave-ins became very real. These stopes were cut by drilling holes in the rock, filling them with explosive, and detonating them. The drilling was done slowly and laboriously by hand until 1895, when the first mechanical drills were introduced. Another difficult condition facing the first miners involved the fact that the drilling was done dry until the 1920s, so the danger of silicosis was always present. Moreover, in the early days mining was done by candlelight, which was not very bright and which helped create a grave risk of fire.

Above ground the ore was crushed in stamp mills that were like huge mortars, each with five 880-pound pestles. These mills created a constant roar that could be heard all over town. Inside the mortar, the gold was amalgamated with mercury, and later the amalgam was recovered and processed. This early method only recovered about 70% of the gold in the ore. In the 1880s, the mine began experimenting with techniques to reduce the amount of gold lost. In the late 1890s, it helped support the commercial development of the cyanide process that became the mainstay of gold refining all over the world in the twentieth century.[3]

These technical developments would have been of no value if the Homestake had not gained complete control of the ore body so it could be worked continuously and efficiently. The standard size of mining claims in the 1870s was just over 20 acres, but because the Manuel brothers had earlier sold rights to parts of the

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[3] The discussion of mining and milling is taken from Cash, 1973, pp. 48-54.

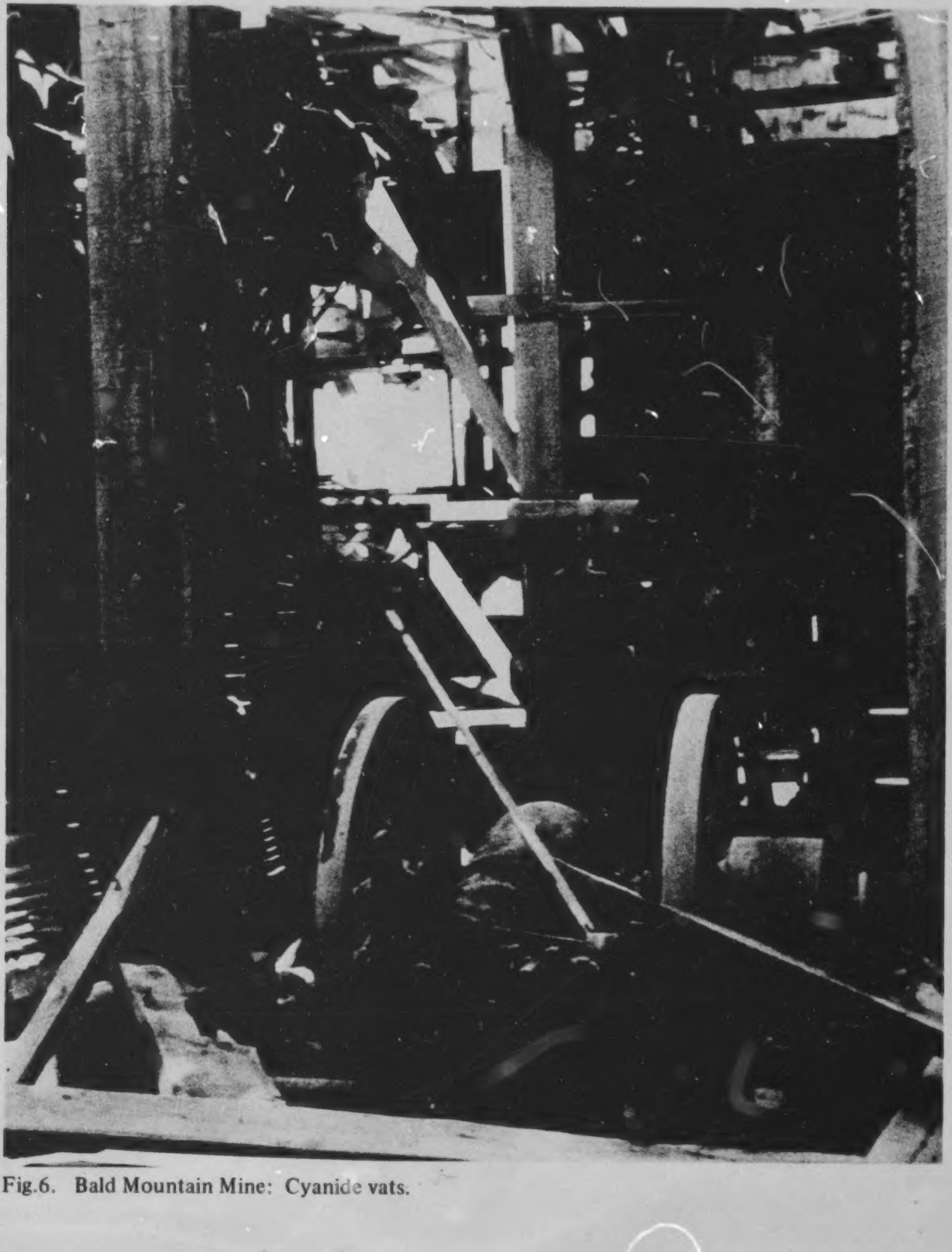

Fig.6. Bald Mountain Mine: Cyanide vats.

Homestake claim to other people, they could only deliver a little more than 4-1/2 acres to Hearst. Moreover, the title to that may have been questionable because the original claim overlapped two others that had been staked out previously--a common situation in early mining camps. To further complicate matters, the Homestake property was surrounded on all sides by other claims that would have to be taken over in order to gain control of the vein. Hearst spent the better part of the years from 1877 through 1879 in the Hills, consolidating and extending his holdings by buying out the interests of different people in the various claims he wanted, or through lawsuits that were often long and difficult. The process of gaining control of the vein was often dangerous and not always carried out within the letter of the law. In the spring of 1878 Hearst wrote:

> I will hurt a good many people...if we succeeded in finding out the fraud and maintain our rights there would be more squealing than was ever heard before. And it is quite possible that I may get killed, but if I should I can't but lose a few years (Fielder, 1970, p. 58).

The "Great Water Fight" illustrates the complicated and questionable machinations that the Homestake went through to extend its holdings. The mine's first main rival was the Father DeSmet Mining Company located over the hill near Central City. In 1879 this company passed up a chance to buy the Foster Ditch, which was the major source of the large amounts of water it needed for refining ore. Although the Homestake had no use for the water, it bought the ditch to gain control of DeSmet. In retribution, the DeSmet Company bought the Boulder Ditch, which supplied water to the Homestake. McMaster, the Homestake superintendent, took the Boulder Ditch purchase to court, claiming that because DeSmet had no use for the water, it had no right to the ditch. To find a use for the water and win the case, the DeSmet Company offered to supply water free of charge to the city of Deadwood. However, another company already had the franchise to supply Deadwood with water, and it brought suit to enjoin the Boulder Ditch from giving its water to the city. In the midst of this dispute, and to insure that the people of Deadwood would learn the "truth," McMaster bought the *Deadwood Pioneer*, a local paper.

When the Deadwood city authorities refused to make a decision on the DeSmet offer, all parties involved agreed that the question of free water should be voted on. According to Cash (1973),

> water was the issue, but alcohol the means. Both sides furnished copious amounts of whiskey, wine and beer in an attempt to woo the voters. Some tee-totalers, immune to the charms of John Barleycorn, had to be bribed. Some men with no ethical standards at all sold votes to both sides. The Homestake with its usual efficiency knew when it was ahead in the balloting and succeeded in closing the polls early (pp. 23-24).

DeSmet lost the election, but it found another use for the water. The legal complications increased, and the dispute was finally brought to the federal district court where it was reviewed by Judge Gideon Moody. He held that Foster Ditch had to be given to the DeSmet, and, in return for $30,000, the Boulder Ditch must go to the Homestake. The ruling was considered to favor the Homestake and Moody later became that mine's chief counsel, but the decision was repeatedly upheld and has been considered good law. Since the Homestake could not gain control of the DeSmet mine by monopolizing its water and since the owners would not sell, the Hearst group took to buying shares of the latter mine's stock whenever they were offered on the open market. They thereby succeeded in gaining control of DeSmet by 1881.

After this period, the Homestake continued to extend its holdings. During the 1890s, its greatest period of expansion, it spent about $2.3 million to buy additional mining claims. Furthermore, because there were so few companies from which it could buy the services and materials needed to support its operation and to avoid other legal entanglements, the mine expanded into areas not directly related to gold production.

For instance, from the beginning, mining required a great deal of timber for underground supports in the stopes and drifts as well as for fuel wood. In fact, the mining industry gave rise to logging in the Black Hills. Because its size required more wood than most, in 1881 the Homestake started the Black Hills and Fort Pierre Railroad as a separate company to transport lumber. In spite of its ostentatious name, this narrow gauge railroad--the first in the Hills--never reached farther than Piedmont, 37 miles southeast of Lead (Fielder, 1964). By 1898, the mine was using about 5 million board feet of timber annually; when it found that the timbers hewn by independent contractors were not entirely satisfactory, it made its first foray into the sawmilling business at Este (Polley, 1960). The company's early interest in providing itself with water has already been mentioned, and in 1888 it began generating electricity for its own use.

The Homestake also moved into the banking business. The first bank in Lead was actually a branch of the First National Bank of Deadwood. It went through several reorganizations between then and 1891, when it became the First National Bank of Lead with assets of half a million dollars. That year, T. J. Grier, the current mine superintendent, was its president; R. H. Driscoll, Grier's confidential agent, was cashier, and the chief Homestake surgeon was on the Board of Directors. The relationship between the mine and the bank was informal but intimate. Driscoll, who later became bank president, did the actual purchasing of competing mining companies for the Homestake. The bank also served as company paymaster and a source of housing loans for company employees. However, there were competing banks in the area at all times, so company employees were not forced to do business with just that one (Cash, 1973, p. 64).

Because of the lack of stores in early Lead, the Homestake even got into the retail business. Since the Hearst Mercantile, the company's store, was originally intended to serve the mine, it carried mining equipment and blasting powder; but it also sold shoes, clothes, furnishings, groceries and, later, automobiles to the entire town. It was so large that it even served as a wholesale distributor. While this store was the largest in Lead, it did not follow many of the oppressive practices of company stores in the southern mill towns. Although Homestake employees could get credit there, and some men were in debt to it all their lives, no interest was charged. Furthermore, employees were not paid in scrip or required to buy there as has been true in southern mill towns. A sales monopoly would have been difficult to maintain with Deadwood, an active retail center, only three miles away (Cash, 1973, p. 63).

After 1892, the Homestake essentially owned the town of Lead. Shortly after the Black Hills were removed from Indian Territory, a group of citizens applied for a patent for the townsite of Lead, while the mining companies asked for patents for their claims. After the patents had been received, miners discovered that the Homestake vein ran right under the town. Because federal law forbade the placing of townsites on mineral-bearing land, property owners were afraid Homestake would make them vacate the area. Since the company was afraid that its ability to follow the lode beneath the surface where title was held by others would be jeopardized, a conflict was inevitable. An agreement was reached in 1892 that gave the Homestake both surface title and mineral rights, although the mine gave surface occupants use of the land. The mine agreed to pay for damage caused by mining to surface property, streets, and alleys, but had the right to require that people move out after 90 days' notice if mining operations necessitated clearing the surface. This agreement applied to large areas of the city of

Lead, although much of business district was exempted. In most other areas, owners had surface title but the Homestake retained mineral rights. Where the agreement operated, it provided advantages and disadvantages for Lead residents. Because they had no title to the land, residents and businessmen did not have to pay property taxes. For the same reason, however, it became extremely difficult to get loans for property development; therefore, special arrangements had to be made by the mine and local banks. The company's right to evict people from its land could have become the basis for tremendous political and social power, but this right was rarely used. On most of the few occasions where it was invoked, the reason was clearly for company expansion. The one recorded exception occurred when a license to property was revoked in order to remove a house of prostitution (Cash, 1973, pp. 59-60, 75). Still, one wonders if the potential for removal did not create at least an implicit threat.

In spite of constant expansion, the mine consistently paid dividends. By April of 1880, it had produced over one million dollars in bullion, and its shareholders received a total of $450,000. Throughout the 1880s, it produced over a million dollars a year in bullion, and annual dividends varied between $150,000 and $675,000. After a dip in production in the early 1890s, bullion production reached $4 million by 1899-1900. That year over a million dollars were distributed as dividends.

By the turn of the century, the Homestake was the most important mine in the region, but it was not without competition. One list compiled in 1904 includes 83 mining companies of various sizes (Baldwin, 1904). These included the Golden Reward (which produced almost $700,000 worth of ore in 1897) and the Horseshoe-Mogul, both near Terry Peak, the Hidden Fortune near Lead, the Wasp #2 up Yellow Creek, and many others.

## Development of Lead and Deadwood

The decline of prospecting and the centralization of underground mining was mirrored in the growth of Lead. In the prospecting period, Lead had been nothing more than a minor mining camp, the growth of which was limited by its inaccessible position high in the hills near the top of a steep, narrow, creek bed. In the late 1870s, the town had only about 1,500 people, and it only added a thousand more in the next decade. Its major period of growth came at the same time as the Homestake's major expansion in the 1890s. The 1900 census showed that its population had jumped to 6,210 and was still growing. When its population leveled off at just over 8,000 in 1905, it was the second largest city in the state (Third Census of the State of South Dakota; 1915).

Although Lead became the largest city in the area, Deadwood remained the governmental and trade center for the Black Hills. In 1877, after considerable political in-fighting, it became the county seat and the seat of the Federal District Court. At the turn of the century, Deadwood's many businesses included a foundry, a creamery, planing and finishing mills, hotels, three banks, and several wholesale houses; it had several doctors and St. Joseph's Hospital. The town's position in the local transportation network helped ensure its commercial dominance. The first stage coaches into the Hills made Deadwood their destination, and there were numerous improvements in the transportation system over the years, including a pony express line and the extension of telegraph lines into the area. But most important was undoubtedly the arrival of the railroad in Deadwood. The Elkhorn had arrived in Rapid City in 1886 and in Whitewood in 1887. For the next three years, progress in the direction of Deadwood was slow, but the city was connected to the line by a daily stage coach and a freight wagon that ran every other day. The mountains between Whitewood and Deadwood seem to have been a major obstacle. At the same time, the Burlington was extending its line right through the middle of the Hills, coming up from Custer. By the time the railroads arrived in Deadwood, a system of narrow gauge lines had linked the city with Lead and the outlying mining towns so that with one blow the whole area had gained a regular, reliable connection with the outside world (Fielder, 1964). In spite of all this activity, its population declined from the high point of around 10,000 in 1876. When the town was incorporated in 1881, the separate mining camps of Deadwood, South Deadwood, Cleveland, Ingleside, Elizabethtown, Chinatown, Fountain City, and Montana City were brought under one single government. Its development was retarded by major fires in 1879 and 1894 and a flood in 1883. The state census of 1905 shows that in that year it had 4,364 inhabitants, but it was still larger than Rapid City, which only had 1,797 (Third Census of the State of South Dakota; 1915).

The transition from small-scale placering to large-scale lode mining was accompanied by changes in the occupational and ethnic make-up of the region and by a shift in the pattern of town sizes. At first the largest source of employment in the area must have been in small placer works where individuals worked alone or in small partnerships. The growth of the larger mines provided an outlet for many of the less successful prospectors, who began seeking salaried employment in the open cuts and underground. Furthermore, people began moving into the area specifically to work in the mines, and a whole new range of occupations was represented that included engineers, bookkeepers, equipment operators, and professional underground miners. Since these people came seeking regular employment rather than a quick killing, they brought their families along. Because of this new migration, the age and sex distribution of the population began to appear more normal as the prospectors were joined by the women and children of the miners' families. As Paul suggests (1963, pp. 164-165), when women began to arrive, they had a major stabilizing effect through their attempts to establish the social and cultural values they had previously known. Their primary impact seems to have been through their influence in the home, but they also tended to found and support churches, schools, and similar institutions that contributed to the order and culture of the camps. In this effort they were often seconded by merchants who were willing to donate time and money to these causes.

As the number of families with children increased in the area, the need for schools developed. The first schools were supported by tuition paid by the students' families. Deadwood's private school was opened in 1876, and Lead's started the following year. The public school started in Central City in 1877 was one of the first in the territory. Lead's public school began in 1878 with 32 children and two teachers. By 1903, the Lead system had 2,100 students, 41 teachers and four buildings, including a high school on the site of the present Central Campus and three outlying grade schools. In that same year, Deadwood had 1,200 students, 24 teachers and six buildings. Those years also saw the development of a growing number of outlying school districts. For instance, the Terry system had 217 students and three teachers. Four years later, it had added almost 100 more students. There were numerous attempts to start parochial schools, especially Catholic ones, but none were successful during this period (Darling, 1960).

The opportunity for regular work that the mines provided also encouraged the immigration of a large foreign group. The 1880 census gives some approximation of a base line. It shows that there were then 3,570 "miners" in the territory, of whom 2,134 were native-born American. Almost a thousand of the foreigners were English speaking, coming from Great Britain, Ireland, and British America (Paul, 1963, p. 182). The largest and most prominent of these groups was the Cornish, or "Cousin Jacks" as they were called locally. The Cornish were professional miners, having worked in the tin mines of Cornwall, which have been exploited since the time of the Phoenicians. As the mines played out, they migrated to other mining areas in the world, bringing their native skills with them. The appearance of a large number of them in any Western mining camp indicated that the exploratory phase was over and that a new period of steady production was underway. While many of the Cornishmen came to the area directly from England, others arrived from other American mining areas, particularly the copper mining regions of Michigan's upper peninsula (Cash, 1973, pp. 30-31).

The middle 1880s saw a "new immigration" of non-English speaking ethnic groups. One of the largest of these was the Italians, who came primarily from the northern Piedmont region. Not surprisingly in the Dakota Territory, the Scandanavians were well represented, including an especially large group of Finns. One of the most colorful groups was the Slavonians from southeastern Europe. The four groups mentioned so far stood out most prominently, especially in Lead, where each group tended to stay together, with private ethnic enclaves and associations. For instance, Gwinn Avenue, which runs parallel to Lead's Main Street two blocks to the south, became known as "Slavonian Alley." Other groups which lacked the solidarity of those already noted included Germans, Russians, Spaniards, Swiss, Turks, Dutch, and American Negroes. The Chinese showed a great deal of solidarity and their distinctive customs made them very prominent, but their numbers seem to have been exaggerated by the stories that grew up after they left the area. Neither the Negroes nor the Chinese worked in the mines, but the reasons for this fact are not clear. The proportion of the population that spoke foreign languages was so large that, by the 1890s, two-thirds of the Homestake employees did not speak English. These ethnic groups seem to have made up a larger proportion of Lead's population than Deadwood's. The exception is the Chinese, who were located primarily in Deadwood and who had preceded the European migration to the mines (Cash, 1973, pp. 31-33).

In Lead, several ethnic groups had their own private associations, including at least the Cornish and the Slavonians. The main programs of these organizations were their insurance operations and their bands that played at funerals and parades. There were also two Chinese tongs in Deadwood.

By the turn of the century, the major towns of the area had developed thriving networks of voluntary associations.[4] Before the gold rush was over, a large number of churches had been formed. Even in the summer of 1876 there were missionaries in the area, but as they had no buildings they had to make do as best they could. One enterprising man of God preached his Sunday services in a dance hall. Shortly thereafter, however, a number of churches were started. The two existing Catholic churches in Lead and Deadwood were founded in 1877, as was the St. John's Episcopal Church in Deadwood. Congregational churches were later founded in Lead and Deadwood. By 1900, the Lutherans, Methodists and Baptists were also represented. Very little is known about the functioning of these religious organizations. In Lead, the Lutherans were split along ethnic lines with separate churches for the Norwegians, Finns and Swedes, although the Swedes never had a building of their own. In contrast, the Catholics chose to have one large, heterogeneous congregation of Italians, Irish, and various eastern Europeans. The Catholic Church was supplemented by the Knights of Columbus.

Among the more functional kinds of voluntary associations were the volunteer fire companies. Besides fighting fires they provided a major source of amusement with their hose cart races. Lead also had a number of athletic clubs with baseball and football teams and contingents of boxers.

Lead and Deadwood both had women's clubs, among the most prestigious of which were the Thursday Club, the Round Table Club and the Twentieth Century Club in Deadwood, and the Women's Club in Lead. This last organization sponsored a number of cultural activities.

Just after 1900, businessmen's clubs were formed in both Lead and Deadwood. These were probably forerunners of the present Chambers of Commerce. Among the first activities of the Deadwood club were lobbying for a federal building in the town and actively supporting the building of the Franklin Hotel.

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[4] Information on voluntary associations is taken from J. Cash, A History of Lead, South Dakota 1876-1900, an unpublished masters thesis at the University of South Dakota; Baldwin (1904); and a series of interviews with ministers carried out by Susan Firestone.

It is undoubtedly an overstatement to say, as one Lead resident did, that that town had more secret societies than any city in the state. Yet all towns in the area had a large number of these organizations. There were chapters of the Masons and Knights of Pythias--a working man's association--in Lead, Deadwood, and Terry. The Odd Fellows, Elks, Eagles, Improved Order of Redmen, and Foresters were also represented in the area.

## Political Influence of the Homestake

By 1889 when statehood was achieved, the Republicans had replaced the Democrats as the most important party in the Deadwood-Lead area, but local politics were highly polarized. The growth of local Republican power seems to have been helped by at least a partial rapprochement with the Yankton forces, but the key to party strength was the Homestake. From the beginning the company had been involved in territorial politics. After the DeSmet water fight, it hired Judge Gideon Moody, a long time territorial politician and leader of Yankton conservatives, as its chief counsel, and he proceeded to develop a significant Republican machine in the Hills. That the Homestake should become a bastion for Republicanism is somewhat surprising since George Hearst was a very active Democrat in California, but he and Moody apparently did not clash on this point. Before the turn of the century, the company was quite blatant in its use of political power. The shift bosses, who had tremendous power underground, were used to instruct miners on how to vote. Marked sample ballots were apparently given to men. At least in the election of 1896, ethnic-oriented Republican clubs were organized by the mine to create support for McKinley.

While the Homestake was a powerful vote getter, it also aroused animosities, and by the 1890s a self-conscious, anti-Homestake faction was looking for ways to fight the mine's machine (Schell, 1961, p. 228). The basis of this opposition must have been the miners themselves, though primarily those outside of Lead. Miners in the American West were often attracted to radical political and labor organizations. The Lead City Miners Union was formed in 1877 and helped found the

Western Federation of Miners in 1893, although it was always one of the most conservative locals in that organization. Still, it seems to have provided support for anti-Republican candidates in the area. Other WFM locals, such as the one in Terry, were more radical and probably provided even more support in proportion to their size.[5]

The 1890s was the period of the populist movement in the American West. While this movement was primarily agrarian, its political arm in South Dakota--the Independent Party--made a concerted attempt to attract labor votes. In Lawrence County, this attempt seems to have succeeded, and a look at voting statistics for this period indicates that miners were attracted to the party that provided a political option which was, in practice, further to the left than the Democrats. In the 1892 presidential election, Harrision--the Republican--beat Cleveland by 2,100 votes to 500 in Lawrence County. Serious opposition really came from Weaver, the Independent candidate, who garnered 1,400 votes. This rank ordering of parties characterized every election in the county from 1890 through 1894, though in some of them the Republicans just barely won and could have been beaten if the Democrats and Populists had allied. This happened in 1896 when the Democrats and the national Populist party both supported Bryan against McKinley, and a Fusion slate was created. This Fusion slate swept the county, and for the first and only time it had a Populist congressman. Even at the high point of anti-Republican sentiment, however, Lead went for McKinley.[6] This suggests that either Lead residents were noticeably more conservative than the rest of the county or else that the mine's control of votes in that town was more effective than elsewhere.

The Republicans managed to beat the Fusion ticket in Lawrence County for the next four years. By 1902, the populist movement was over, but radical politics were not yet dead in Lawrence County; a new Socialist Party entered the Congressional election that year.

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[5] Interview with William Burke, whose grandfather was a union organizer.

[6] Voting statistics come from South Dakota Legislative Manual, 1909, pp. 215-374.

Republicans polled 2,900 votes, Democrats got about 1,100 and the Socialists came up with around 700. The Republicans were only able to maintain a thin margin of control in the county, but they did so consistently. Because of the important role the Homestake played in these victories, it became a major power in the state, and it brought its influence to bear in a number of areas. When the first state legislature met in 1889, Judge Moody was able to gain a Senate seat for himself in spite of strong opposition from the Farmers' Alliance, a predecessor to the Independent Party. He served in the Senate with George Hearst, who was a Democrat from California; however, Moody's career lasted for only two years, because when lots were drawn he received the short term (Schell, 1961, pp. 227-228).

Homestake influence was even something to reckon with on the national level. In 1904, the mine almost singlehandedly blocked a bill by conservationists to transfer the administration of the national forests from the Department of the Interior to Agriculture. The company was afraid it would lose its preferred position for purchasing timber from the Black Hills forest reserve. The act passed in 1905 because a provision was added that forbade the sale of green timber from the reserve out of state, which insured that Homestake would remain the primary purchaser of Black Hills lumber (Hays, 1959, p. 43).

## Culture and Social Services

Generally, the mine seemed to be much more concerned about the well-being of its workers and the town of Lead than were similar companies in other parts of the West. This orientation is not so clear in the salary scale at the mine, which was midway between the highest and lowest among the Western mines. By the turn of the century the Homestake work force included 2,200 men. In that period, unskilled laborers received $2.50 a day for surface work and $3.50 for work below ground. Miners who operated air drills received $6.00 a day. Mill workers got between $3.00 and $4.00 a day, but mill work was less risky than mining. These salaries were not high, but they were apparently enough to allow for some savings (Cash, 1973, pp. 37-38).

The supportiveness of the mine is better demonstrated by the program of medical services it offered, which was generally superior to those provided by other Western mines. In 1878, the Homestake first contracted with two doctors in a manner similar to other mines in the area. However, the services it provided became more extensive when it built its first company hospital in 1879. A new building was constructed in 1886 and expanded in 1895. Until 1906, the company contracted with a chief surgeon who hired his own staff. In that year, in order to increase control over the medical operation and thereby reduce the friction with employees, the company initiated a reorganization which consisted primarily of hiring the whole medical staff directly and forbidding private practice. Still, bad feeling was not eliminated until the medical program, which then required monthly payments from employees, became absolutely free.

As the largest taxpayer in Lead by far, the Homestake played a major role in the educational system. Samuel McMaster recruited R. H. Driscoll to direct the school system in the early 1880s, apparently without opposition from the school board. Driscoll eventually moved on to other positions that were critical to the mine, including the presidency of the First National Bank; but while he was superintendent and afterwards, the company supported both him and the system and promoted quality education. Company officials were always on the school board, supported progressive measures in education, and were not tight with tax money. The school system that resulted was a superior one for the state. The buildings were of high quality, and by 1897 both Latin and English courses were offered.

Although the Deadwood school system lacked the support of the Homestake, it seems to have been of comparable quality to the one in Lead. Both systems were accredited in 1906 by the North Central Association of Colleges and Secondary Schools, at a time when only two other systems in the state were so designated. Teacher salaries seem to have been about the same in both systems, but they were almost twice as high as those paid in the larger cities in the eastern part of the state. In 1897 the average Lead teacher's salary was $67.50 a month. In 1905, Deadwood was paying most of its teachers between $70 and $75 a month (Cash, 1973, pp. 77-78; Lead Daily Call, June 28, 1971).

The Homestake also became the indirect source of a number of other kinds of social benefits. When George Hearst died in 1891, his widow Phoebe became the major philanthropist in Lead. Her major concern seems to have been with immigrants, many of whom could not speak English, and their problems in adjusting to their new environment. To facilitate their adjustment she presented the community of Lead with a complete library in 1894. It spent two years in the union hall before being moved to the Hearst Mercantile Building. This library included over 4,000 volumes of history, science, art, poetry and fiction. Many of them were in such foreign languages as Italian, Slavonian, Finnish, and German. The library also subscribed to 81 periodicals, including foreign language journals. Because Mrs. Hearst wanted to foster higher culture, she also specified that musicales were to be presented in the library; every month chamber music concerts were held, and these were so popular that tickets had to be issued to limit attendance. Because of her interest in education, Phoebe Hearst financed the Lead free kindergarten that was founded in 1900. In 1901, this kindergarten had three teachers and taught 140 children from ages three through six, for five days a week; it expanded when facilities became available. The kindergarten provided direct and indirect benefits. Besides giving mothers time to go downtown, it sponsored mother's parties with entertainment for children and inspiring lectures for the women. All of its activities facilitated Americanization. The kindergarten itself gave foreign-born children training in English and taught them American ways. At the same time, the opportunity to get out of the house provided socialization experience for the mothers. Mrs. Hearst's activities were greatly appreciated by the people of Lead, and while they were not performed specifically to create good will for the company, her philanthropic image did influence feelings toward it to some extent.

Besides these major activities of the Homestake and the Hearst family, the mine tended to help out in small ways as well. For example, in 1902 it gave the city a piece of land for a park. Furthermore, if a church or similar institution had problems with its physical plant, it could often get a Homestake crew to make a repair free of charge.

The mine's policy of supporting social services created a reservoir of good will and contributed materially to a condition of labor peace during its first quarter-century of operation that was extemely unusual for Western mining areas. Because of this feeling towards the mine, the miners' union functioned mostly as a charitable and benevolent association than as an organization that tried to win rights and benefits from the company for the miners. It paid up to $75 for funeral expenses for deceased members and compensation for illness of up to $8 per week for up to 16 weeks. In this area it was seconded by the ethnic associations that also had insurance programs. In addition, it had a union hall, which after 1892 provided space for the Hearst Library, meeting rooms for workingmen's organizations, and the largest opera house in the state where entertainment of high quality was provided for all the people of Lead. The union was an active organization with 2,000 members in

1900, including 1,100 Homestake employees, but its position as a bargaining agency was always unsatisfactory. It never had a contract with the mine, which would not recognize it as a formal bargaining agent or allow a closed shop. The company would meet with the union, and relations between the two organizations were usually cordial and always polite, but it is difficult to see any relationship between the union's activity and the salary scale or working conditions of miners.

## The Turn of the Century

The number of towns surrounding Lead and Deadwood was considerably larger in 1900 than it is presently because there were more mines in the area. Terry, which served two mines, had 1,200 inhabitants. Today it no longer exists. Many of the towns were already growing smaller. Central City had declined to 648 by 1905, one-fifth of its size in the 1870s, as the number of mines surrounding it declined (Baldwin, 1904; Stewart, 1972, p. 260).

By the end of the nineteenth century, a social structure had been established in the Lead-Deadwood area that could assimilate growth and provide more permanence and social stability than the social order of the mining camps. In fact, the process of civilization and stabilization had begun to become apparent to residents as early as the late 1880s. Estelline Bennet (1935), who grew up in Deadwood, gives the following picture of the town at that time:

> In the years (Calamity Jane) had been away the roaring young placer gold camp had grown into a small city--the distribution point for gold that was pounded out of quartz or melted out of refractory ores. The Black Hills no longer was a poor man's fortune field...Homes had multiplied along Forest Hill...and in Ingleside...There was a brick schoolhouse at the upper end of Main Street just before it left town...there were more churches than there had been in Calamity's day, and more children on the streets. A generation was growing up that knew Calamity Jane only as a colorful bit of local history.
>
> Most of her old friends and comrades were gone (pp. 218-219).

Although the 1890s had been a period of mining expansion and the population of the county did not peak until it reached 21,000 in 1905, this development was more orderly than it had been in the late 1870s and early 1880s. The towns of the area still had their wild qualities. They were still violent, as mining towns tend to be, but the excesses of the gold rush period were over.

McClintock (1939, pp. 270-274) has made a list of murders in the Black Hills between 1876 and 1895. When those killings that resulted from Indian attacks and those that took place in other parts of the Hills are eliminated, a trend of decreasing incidents over time became apparent, as the following table indicates.

Table 2

HOMICIDES IN THE LEAD-DEADWOOD AREA

| Year(s) | Number |
|---|---|
| 1876 | 9 |
| 1877 | 10 |
| 1878 | 10 |
| 1879 | 4 |
| 1880-89 | 2 |
| 1890-95 | 6 |

Gambling and prostitution still flourished in Lead and Deadwood, and several elections showed that the county--unlike many others in the state--had no interest in prohibition, but the saloons and brothels no longer played the predominant role in defining the character of local towns that they did earlier. In the interim the business communities had become much more important forces, and they consciously tried to promote a more conventional and "respectable" morality. The Black Hills Illustrated of 1904 (Baldwin) that was put together by businessmen from all over the Hills to show the outside world presents a picture of the region that is characterized by commercial-industrial progress, civic improvement, and more generally of staid respectability as if the rough-and-tumble frontier past of the region had almost never been. Consider its description of Deadwood:

> At no time in its history would Deadwood ever be classed as a "gross town." It has ever been singularly free from the bad element that has made other western and frontier towns notorious.

This business community was not trying to "clean up" the towns, however. According to Bennett, the "Badlands" or red light district and the business section formed two active but quite distinct sections of Deadwood, and members of the latter carefully ignored residents of the former. In Lead, the Homestake occasionally tried to get rid of the brothels, but the police department ignored both gambling and prostitution. In both towns, the respectable and wild communities were somewhat segregated from each other but existed together peacefully side by side.

By the first years of the twentieth century, the Lead-Deadwood area had outgrown its gold rush past and taken on many of the characteristics that it still has today. The mining industry had been organized on a relatively permanent basis, and the Homestake Mine had become the predominant economic and political institution of the region. It had also become an important source of social services in Lead. Deadwood and Lead had established their characters as a commercial center and a company town respectively. The populations of both would fluctuate in the future, but the relationship of sizes had become fixed. Improved transportation had strengthened the link between the area and the rest of the nation. As a result of these developments, the area had lost the rawness and wildness of the earlier years and had become somewhat more stable and subdued.

In some respects, however, the area differed a good deal from present-day Lead and Deadwood. Politics were more competitive, and the mine had to be more blatant in its use of influence. There were more outlying towns, and the population included several clearcut, unassimilated ethnic groups. Some of these differences, especially the existence of so many first generation ethnics, reflected national conditions for the period. In any case, while great changes were ahead for the area, they would not be as great as those that had taken place in the previous quarter century.

## THE TWENTIETH CENTURY

### Introduction

The twentieth century saw the elaboration of the Lead-Deadwood area's character as a mining district dominated by a single company. Most of the changes the area underwent stemmed from national and international events that affected the production of gold. The only challenge to Homestake dominance came not from other mining companies, which gradually died out, but from unionism, and that was not effective.

### The Lockout[7]

Although they acted primarily as benevolent associations, mining unions were an integral part of the region until 1909, when the Homestake lockout virtually put an end to them for half a century. This lockout stemmed from attempts by the Western Federation of Miners to increase local membership. Until 1893, each mining camp had its own separate union, and there was no national organization to support them. (The United Mineworkers limited their activities primarily to the eastern coal fields.) That year, as a result of an extremely violent labor-management confrontation in Coeur d'Alene, Idaho, the miners of that area began the WFM in order to bring all the western mining unions together. The Lead City Miner's Union was one of the first to join. It was one of the largest and wealthiest locals and became a mainstay for the organization.

The WFM under the presidency of Charles Moyer became one of the most powerful unions in the country, with a large number of locals in Colorado, Idaho, Montana, Utah, South Dakota, Michigan, and even Canada, and a number of very effective organizers. It also became generally feared and abhorred for its violence and radicalism. From the very first in Coeur d'Alene, the union was

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[7] This section is based on Cash, 1973, pp. 80-90; Fielder, 1970, pp. 198-206; and an interview with William Burke who is related to William Tracy.

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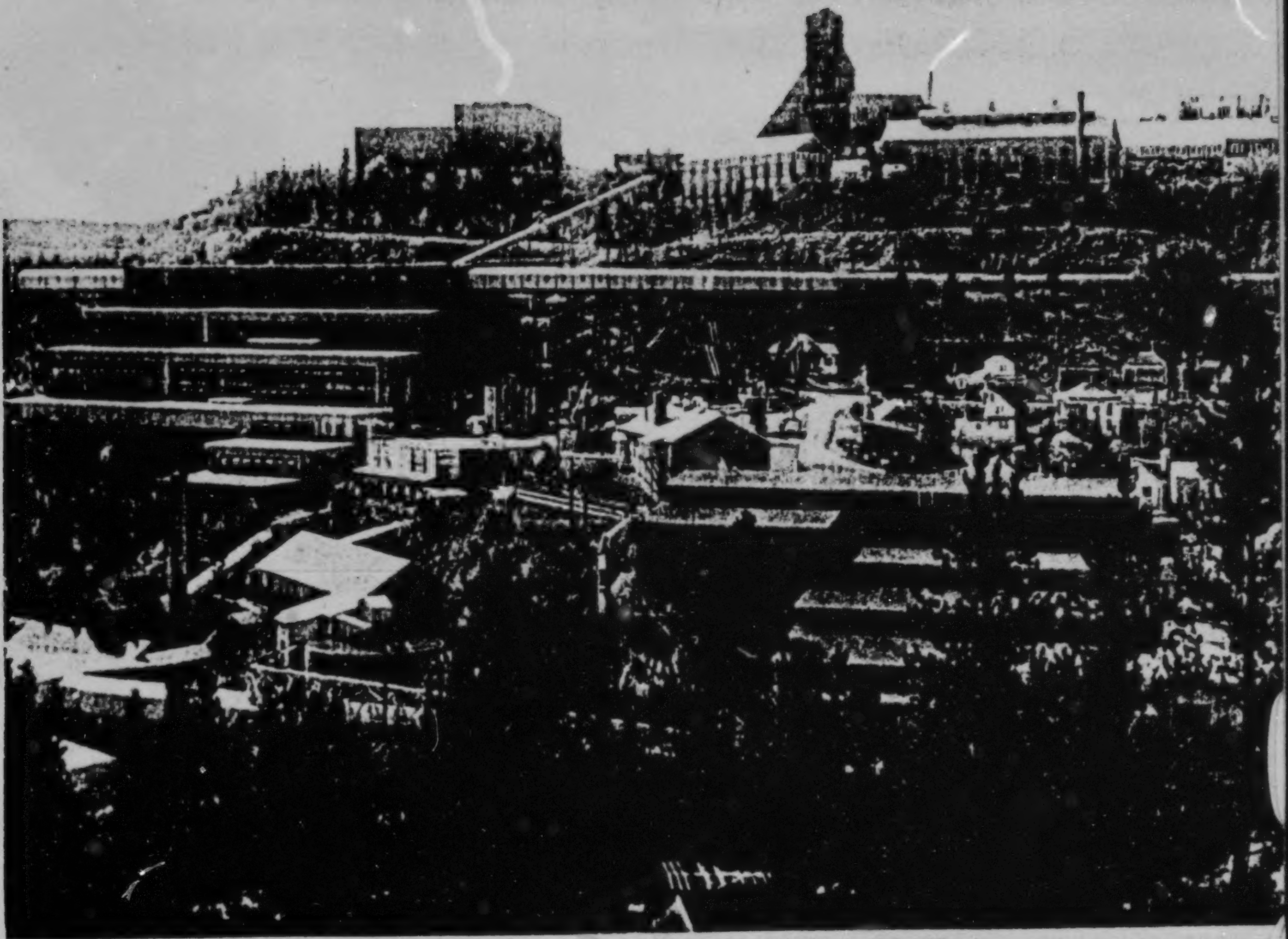

Fig.7. Overview of Homestake Mine.

involved with violence. In 1905, ex-governor Sudenberg of Idaho, who was detested by miners for his role in suppressing the union there, was killed by a dynamite bomb attached to his front gate; the slaying was blamed on the WFM, and while the leaders were acquitted in the court case that followed, the suspicion that they had done it remained. WFM strikes were often extremely bloody. Furthermore, the union was known for its extremely left-wing leanings. It helped form the IWW, although it later broke with that organization and courted the AF of L for a time. Its 1902 constitution explicity adopted the principles of socialism. Until 1907, one of the union's best known leaders was Bill Haywood, a frequent speaker for socialism.

Perhaps it is surprising that such a radical union and conservative mine managed to exist together peacefully for as long as they did, but the Lead local, for all of its interest in labor relations in the western mines and its willingness to support strikes elsewhere, did not share the character of the central organization. It had been formed 16 years before the WFM and had already established its mission as primarily one of giving insurance benefits to its members and providing an all-purpose community center to the town through its union hall. Furthermore, the mine did not push the union into violence. Wages were reasonable, and the other benefits it provided were quite good. The mine would not recognize the union or acknowledge its influence when increasing benefits, but T. J. Grier--the current superintendent--was willing to meet and discuss matters with the union. Relations were generally cordial, and the mine did not attempt to eliminate the union or interfere with membership drives.

Still, the union's position could have been improved. The mine tended to give benefits unilaterally to all workers whether or not they were union members, so union efforts benefitted everyone. In addition, while the union's income was quite high, its expenses were as well; and the most effective way to increase revenue was to increase membership. From the union's viewpoint the best way to solve both these problems would be to create a closed shop. The WFM apparently had reasons of its own for strengthening the Lead Local, for in 1909 the decision was made to conduct a massive membership drive in the Black Hills.

The strategy chosen was to bypass the company leadership and work directly with the miners. The leader of the drive was William Tracy, a miner from Terry who had been put on the WFM payroll for the purpose. Each ethnic group had its own organizer. While most of these were local people, Yanco Terzich, a WFM executive board member from Michigan, was brought in to organize the Slavonians.

Since the founding of Lead, the town's biggest annual event had been Labor Day, and the union usually had charge of the festivities. To kick off the membership drive, a Labor Day program was planned that would outdo anything the town had seen before. The parade that was held featured 25 different Black Hills unions, the last and largest being the Lead miners' union. Other entertainment included a baseball game, acrobatics, and, most important, a speech by "Mother" Jones, a 75-year-old lady with silver hair and a sweet smile who was also a prominent socialist and hell-raising speaker.

In the two months that followed the Labor Day activities, WFM organizers managed to recruit nearly 1,000 men to the union, and by October 24, 1909, it claimed that 98% of the eligible Homestake employees were members. At that time, pressure was applied to sign up the last stragglers. The Lantern, a socialist paper in Deadwood edited by Freeman Knowles, attacked all who failed to join, and a series of meetings was held to whip up enthusiasm. At one of these, Tracy put through a motion that union members would not work with non-union men after November 25. The next day a union committee asked T. J. Grier, the mine superintendent for a list of Homestake workers. Grier refused but said he was not opposed to unionism as such.

In the days that followed, however, the mine took the offensive, first with a lawsuit against the union and then with a notice on November 17 that, as of January 1, 1910, the company would only employ non-union workers. The union tried to go over the heads of Grier and Homestake attorney Chambers Keller by appealing directly to the San Francisco office and to Mrs. Hearst to have the order rescinded, but to no avail. When it became clear that the order would stand, the union moved as quickly as it could to retaliate. Tracy obtained authorization to strike from the WFM, and the strike motion was passed by a simple majority. Because the mine had been expecting such a move for some time, on November 24, before the strike vote could be made public, it announced that it would cease operations immediately.

The union was in a difficult position to cope with a lockout because its men wanted to work. Unlike many mines in the West, the Homestake employed mostly family men who needed to work to support their wives and children and who were less likely than single men to fight the company because they were less able to move out if they lost. Another difficulty was that unlike most other mining communities which had only one primary ethnic group, Lead was divided into several. Since each group had its own association and language, it is doubtful that the sense of unity among workers overcame ethnic solidarities. Furthermore, some groups were more loyal to unionism that others. Finns, who tended to be more socialist, and the Slavonians, who were well organized, were more pro-union, while the Cousin Jacks, who were more assimilated and had better jobs, felt more loyalty to the mine. Three days after the lockout began, WFM vice-president C. E. Mahoney, who was in Lead at the time, publicly insulted a priest who had been voicing anti-union sentiments;

he thus managed to alienate a large portion of the Catholic miners.

In spite of these problems, the lockout lasted into the new year, and while it continued, it polarized the town. Allied with the union were its own *Black Hills Daily Register*, the *Lantern*, most of the small family businesses that dealt primarily with mine workers, and all other unions around. The *Lead Daily Call*, along with all the other newspapers in the area and almost all of the businesses, sided with the mine. Perhaps because Homestake employed 75% of the miners in the area, the 13 other mines nearby aligned themselves with the larger company and announced that they too would close until they could open with non-union labor and further suggested that other businesses in the area should support their action.

Tensions were high throughout the lockout. The mine hired Pinkerton agents to guard its equipment, and the union had a large parade as a show of strength on December 15; yet the lockout was carried out with no major violence. The union charged that the Pinkertons beat up five of its members, and several incendiary bombs were thrown into Homestake buildings. In addition, Chambers Keller and Freeman Knowles, who was acting as attorney for the union, had a fist fight in the Deadwood courthouse. These incidents never developed into the large scale violence that marked earlier WFM actions, however. In fact, both sides tried to avoid violence. The WFM president encouraged local members to make a "peaceful fight." For its part, Homestake avoided those actions that had inflamed opposition elsewhere, such as calling in the army, using "bullpens" to hold recalcitrants, and evicting miners from their houses.

At the same time, the mine was taking effective steps to line up a non-union work force. It made available cards to be signed that said that the worker did not belong to a union and if hired would not join one, and people began to sign. On January 6, 1910, the Loyal Legion was formed and petitioned Grier to reopen the mine. Recruiters were then sent to bring back workers from

Colorado, Michigan, the South, and especially the lead mining regions of Kansas and Missouri. On January 13, the first hoist started operating with scab and Loyal Legion labor. More and more workers turned in their union cards and went back to work. In mid-February, the Golden Reward and Mogul mines reopened, and they along with most other small companies were back in full production by the end of the month. When the last Homestake stamp mill began operating March 3, the incident was effectively over.

The WFM never actually gave up the strike. While Tracy and Terzich left the area in April, Kirwan and others continued the fight. WFM relief funds kept coming into town through 1911, but the fight was over. In 1913, the WFM cancelled charters of all Black Hills locals except a small one in Galena. That same year the union paid the transporation charges for the last of its adherents leaving the area, and Moyer admitted the battle had been lost.

## The Aftermath of the Lockout

The lockout of 1909-1910 put an end to unionism generally in the northern Black Hills, but its effect was especially great in Lead and on the Homestake management. According to Cash (1973), "The men who ran the company, as well as the vast majority of the citizens of Lead, would forever identify all types of unions as anarchistic and destructive. This feeling would pervade all thinking and actions regarding the treatment of labor ever after" (p. 100). It also essentially finished any third party political activity in the area. Beginning with 1902, when the Democrat-Populist fusion movement finally played out, Lawrence County became the essentially Republican stronghold that it is today. However, as Table 3 indicates, the area continued to support an active and growing socialist organization through 1908. In fact, the county was the largest of the two or three socialist areas in the state. The socialist vote dropped dramatically in 1910, however, and contined to decline from then on.

Table 3

## LAWRENCE COUNTY VOTING PATTERNS: 1902-16

| Year | Type of Election | Republican | Democratic | Socialist |
|---|---|---|---|---|
| 1902 | Gubernatorial | 2,900 | 1,200 | 700 |
| | Congressional | 2,900 | 1,100 | 700 |
| 1904 | Presidential | 4,200 | 1,300 | 800 |
| | Congressional | 4,100 | 1,300 | 790 |
| 1906 | Gubernatorial | 2,300 | 1,050 | 1,111 |
| | Congressional | 2,300 | 1,200 | 950 |
| 1908 | Presidential | 2,650 | 1,500 | 1,000 |
| | Congressional | 2,700 | 1,450 | 1,000 |
| 1910 | Gubernatorial | 2,600 | 1,400 | 500 |
| | Congressional | 2,900 | 1,000 | 549 |
| 1912 | Presidential | 1,700 | 2,400[a] | 325 |
| | Congressional | 2,638 | 1,427 | 325 |
| 1914 | Gubernatorial | 2,400 | 1,100 | |
| | Senatorial | 2,300 | 1,400 | |
| 1916 | Presidential | 2,050 | 2,150[a] | 110[b] |
| | Congressional | 1,800 | 2,300 | 80 |
| 1920 | Presidential | 2,600 | 1,700 | 150[b] |
| | Congressional | 2,400 | 1,800 | 190[b] |

[a] The Bullmoose movement seems to have severely undercut local Republican strength. Theodore Roosevelt was very popular locally, and his rejection by the party gave the election to the Democrats.

[b] The Socialist Party ended after the 1912 election. Third party votes in these years went to the Non-Partisan League, an agriculturally oriented South Dakota party that never caught on in the Hills.

Source: South Dakota Legislative Manual, 1911, 1914 and 1916.

With the end of unionism, the Homestake was the predominant organization in the northern Hills, and it could have turned to repressive techniques to maintain its control. Instead, it chose to build on its traditional pattern of providing benefits to workers and residents to insure their loyalty. A 1916 comparison of non-union Lead with Butte, Montana, where unions were especially strong, showed that the underground working conditions and medical facilities available in the Hills were noticeably better(Engineering Mining Journal, August 29, 1914, p. 378). In fact, after 1910 the mine expanded its social services to fill the gap left by the union's demise.[8]

One of the Homestake's first actions in this area was to start building a recreation center. The new building was built between 1912 and 1914, at a cost of $250,000. It contained a card room and billiard tables on the ground floor; a gym, bowling alley, and swimming pool in the basement; and a library on the second floor. All these facilities were provided free to Lead residents whether or not they worked for the mine. Attached to the Recreation Center was the Homestake Theater, where vaudeville, legitimate theater, and movies played for reasonable prices. Homestake continued to operate the center until 1971, when it was turned over to the city.

The mine also expanded the services it provided to the ill, the disabled, and the aged. In August of 1910, the Homestake Aid Fund Association was created to replace the union insurance program for dealing with the sick or injured. After state law required the company to pay all the costs of accidents in 1917, the fund, which received contributions from miners as well as the company, was used only for sick benefits. In 1917, the company also began a pension system for old and disabled miners. Over the

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[8] The material on social services that follows is taken from Cash, 1973, pp. 68-79.

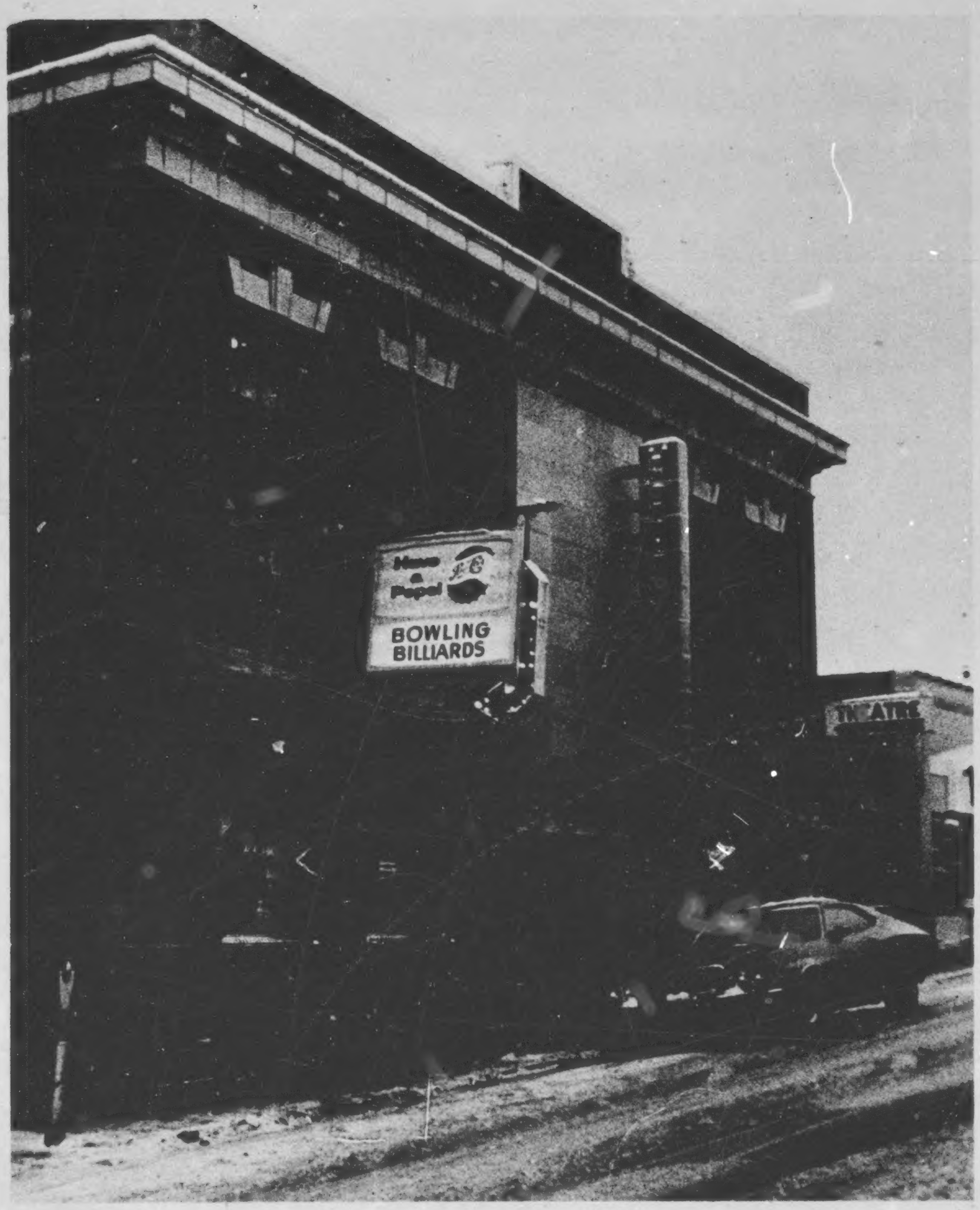
Have a Pepsi
BOWLING
BILLIARDS
THEATRE

Fig.8. Homestake Club.

years, it also expanded its free medical program to include general medical, surgical, and obstetrical care to employees and their relatives. In 1923, the company hospital was significantly expanded. Homestake doctors were busy; in 1924, they made about 13,000 house calls and saw 43,500 dispensary patients. By 1940, the house calls had risen to over 16,000, while almost 90,000 dispensary patients were seen.

Homestake continued to support the school system. Physical education classes used the Homestake pool, and, in 1919, the company provided the schools with a football field by blasting a level area on a mountaintop. The schools and the mine also cooperated on a citizenship program. In 1919, the Homestake ordered that henceforth all company bulletins and notices would be written in English only and indicated that it did not want to keep foreign citizens on its payrolls. It kept records of its foreign born employees and monitored their progress towards citizenship. The school system in turn provided free night school citizenship classes. The kindergarten was also part of the Americanization program; when Phoebe Hearst died in 1919, the mine continued to underwrite it until 1934 when the school system took over the program.

## Lead-Deadwood in the 1910s and 1920s

Since mining has been the mainstay of the Lead-Deadwood area, it is important to understand how it developed in the years after the lockout. The Mineral Resources Yearbooks (1919) show that there was very little mining activity in South Dakota outside of Lawrence County. Within the county, the number of mines varied a great deal during the 1910s, but the Homestake remained the largest, as is indicated by Table 4. In addition to the underground mines listed in the table, there were a few placer operations and individual prospectors still working in the Hills.

Table 4

MINING COMPANIES IN THE BLACK HILLS: 1912-21

| Year | Gold Produced | | Number of Mines |
|---|---|---|---|
| | Homestake | Other | |
| 1912 | $6,600,953 | $1,274,448 | 19 |
| 1914 | $6,160,160 | $1,171,478 | 21 |
| 1916 | $6,531,003 | $ 924,113 | 29 |
| 1918 | $5,196,890 | $ 647,960 | 13 |
| 1920 | $4,410,193 | $ 266,227 | 7 |
| 1921 | $6,299,780 | $ 303,538 | 3 |

Source: U.S. Geological Survey, Mineral Resources of the U.S., 1916, 1919; and U.S. Geological Survey, Mineral Resources of the U.S., 1921, 1924.

The 1921 Mineral Resources Yearbook states that the only important mine besides the Homestake was the Trojan Mine on the shoulders of Terry Peak, a few miles west of Lead. It continued to operate until 1923. In 1928, the Bald Mountain Mining Company was formed through a consolidation of the Trojan with the Clinton Mining Company, the Two Johns, Imperial Mines, and parts of the Mogul. This company continued as the only other important mining operation until it closed in 1959.

The closing of the smaller, outlying mines meant the end of the small towns that were scattered through the southern part of the county. The declining number of post offices indicates this trend. In 1909, there were 14 post offices in the southern part of the county. During the 20 years that followed, only one new one was opened, but the ones at Carbonate, Galena, Hanna, Maitland, Nahant, Pluma, Stewart, and Twobit closed; by 1929, the area had only eight post offices.

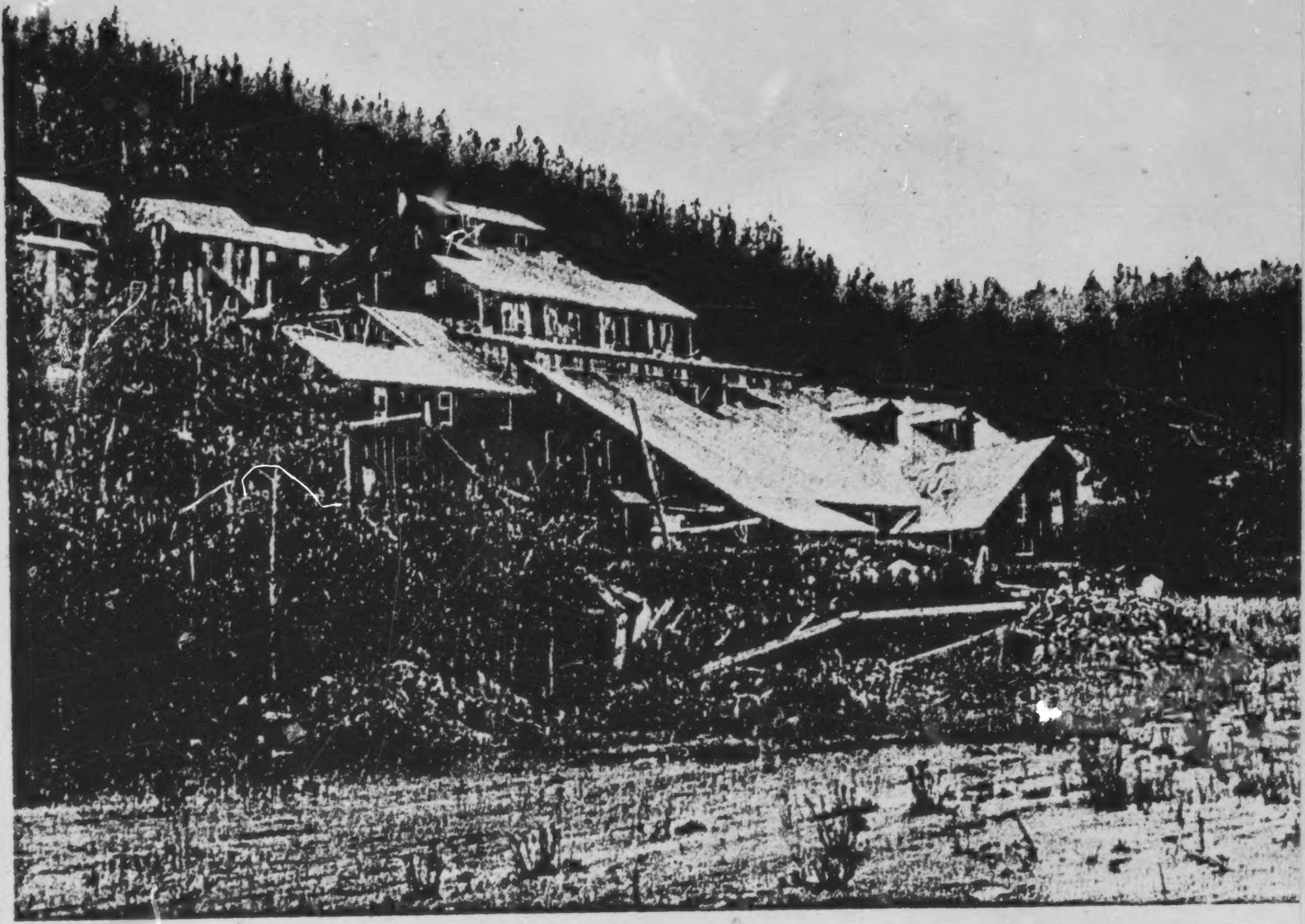

Fig.9. Abandoned Bald Mountain Mine.

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During this period, the Homestake had a number of problems. Fires in 1907 and 1919 required flooding of the mine and halted production for several months at a time. The second fire came at an especially bad time, because World War I caused a labor shortage that contributed directly to the demise of the smaller mines and forced Homestake to curtail production. The shortage was so bad that in 1920 the company ordered a temporary wage increase. As the labor problem eased in 1921, there were signs that the Homestake ore body was playing out. The 1923 annual report admitted that "ore bodies are rapidly diminishing in size" (Fielder, 1970, p. 271). When these rumors and projections of some of the company's geologists leaked out, they scared some residents of the two towns enough to cause them to move out, dealing a severe blow to the real estate market. Speculation about the nature of the Homestake vein continued until 1927, when further exploration showed that after a temporary interruption below the 2,000 foot level, it continued much as before.

The growth of the open cut from 1906 until the 1930s also had profound effects on the mine and on the town of Lead. The Homestake had been started on the north side of the valley of Gold Run Creek, and the town had grown up below it centering on Main and North Mill Street. The first mining operation was done through an open cut, and over time tunneling or drifting was started below it and continued on to the south. The early techniques for backfilling the stopes where the ore was removed were primitive, and as the wooden mine timbers began to rot in those areas, the surface works above began caving in. The first indication of trouble came in 1906 when a chunk of the surface near the Homestake mills fell in. Attempts to fill it were futile. By 1916, the cut was 450 feet across and 500 feet deep, and provided a worthy setting for a virtuoso demonstration of tightrope walking by the famed Ivy Baldwin on the Fourth of July celebration (Fielder, 1970, p. 234). Five years later the subsidence threatened the mining and milling works on the north side of the valley. Plans were begun to replace existing stamp mills with one large plant--the present South Mill--and to move the shops to the other side.

The cut was also expanding towards North Mill and North Bleeker Streets, the location of most of the town's businesses. Eventually, all establishments had to move either out of town or up the Gold Run Valley to the west, where the present downtown of Lead is located on Main Street. The mine paid damage claims to most of these businesses. The open cut also succeeded where conventional law enforcement techniques could not in putting an end to the town's larger brothels.

The 1910s and early 1920s were the high point of railroad development in the Black Hills. Deadwood was served by two railroads. The Chicago, Burlington, and Quincy ran its line up through the heart of the Hills, while the Northwestern came from the east through Rapid City and Whitewood. Each line had a number of standard and narrow gauge branches serving the outlying mines and logging camps, and the Burlington ran a branch line through Spearfish Canyon to the town of Spearfish. Both companies also ran inter-city trains from Deadwood to Lead. The Burlington's was an electric trolley that ran up Gold Run Creek; the Northwestern's narrow gauge train left Deadwood in the direction of Central City, then switched back through the Hills and arrived in Lead through the Washington district (Fielder, 1960).

By the middle of the 1920s, railroads were beginning to give way to the automobile. As the use of trucks to haul timber increased, the narrow gauge operations declined until there were none left by 1930. The inter-city trains were discontinued in 1924 and 1927, although the right-of-way up Gold Run Creek was paved for the use of buses which continued into the 1960s. In 1934, a section of the Spearfish Canyon line washed out and was never replaced. Gas rationing during World War II gave the two lines into Deadwood a new lease on life, but passenger service was discontinued in the late 1940s. Since 1969, when the Northwestern was allowed to abandon its line from Whitewood to Deadwood, the area has been served only by the Burlington. Its main source of revenue is the coal it hauls to the Kirk power plant near Lead.

The rise of the automobile also meant the rise of tourism, especially in Deadwood. In the 1890s, the major attraction for tourists was Hot Springs, well over 80 miles away at the southern edge of the Hills. While an occasional special train might make its way to Deadwood, there were not enough travelers to make tourism an important part of the economy. As roads were put through the Hills, people began coming to the area to camp. By 1920, Lead was drawing so many outsiders that it was necessary to form the Homestake Guides to conduct tours of the mine's surface works. Still, the Hills were well off the usual beaten track for tourists and were not that well known until President Coolidge came to visit in the summer of 1927. The trip had been arranged by a Black Hills newspaper editor specifically to publicize the region. The President spent three months of the summer in the area, living in Custer State Park and using the Rapid City Central High School as his executive office. He traveled widely in the area and visited Deadwood for its Days of '76. His visit was so successful that all summer the Burlington ran special trains up to Deadwood from Edgemont at the southern edge of the Hills to accommodate tourists (Clark, 1952).

Two other events brought fame to the Black Hills area. The most important was the construction of presidential faces on Mt. Rushmore. The idea of sculpting some of the granite masses of that area was conceived by the State Historian in 1924 almost by accident, as a way of encouraging tourism, but the idea caught on. Construction was begun in 1926 and continued for well over a decade. The site was visited by Coolidge during his stay in the Hills, and by Franklin Roosevelt in 1936, when Jefferson's head was unveiled. The other happening was the use of the "Stratosphere Bowl," a small valley near Rapid City, as a launching spot for several balloon flights in the 1930s.

From the beginning of the automobile area, Deadwood began experimenting with ways of attracting tourists. The most important development was the Days of '76. This rodeo-fair had started out as a local event to remind residents of their past, but during the 1920s it became a major occasion intended to draw outsiders. By the time of the Coolidge visit, extensive amounts of money were being spent on the Days of '76, and professional directors were hired and imported from the East to arrange the event (Yuill, 1971).

The publicity of the 1920s and 1930s, as well as the Lead-Deadwood region's natural assets, firmly established it as a tourist area. While statistics were not kept systematically, available records indicate a pattern of consistent growth. In 1931, for instance, 13,000 visitors registered at the Adams Museum in Deadwood, and by 1951, the number had climbed to 71,500. Similarly, 55,700 visitors registered in the Black Hills National Forest in 1933, and that figure had grown to 239,100 by 1951.

The 1920s was also a period of inter-group and especially anti-Catholic prejudice in the Lead-Deadwood area.[9] It is difficult to know how long such feelings had existed in the area or how widespread they were. They came into the open after 1921, when the Ku Klux Klan began organizing in the area. In this area, the Klan ideology and literature did not attack Negroes so much as it extolled super-patriotism and hatred of aliens and Catholics. The following poem was often found on special coins carried by Klansmen:

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[9] Information on the Ku Klux Klan is from a speech given by Charles Rambow to the Lead Kiwanas. Information on the Catholic Church is from Helen Morganti, "A History of the Catholic Church of Lead, South Dakota," unpublished.

I would rather be a Klansman in a robe of snowy white
Than a Catholic priest in a robe as black as knight.
For a Klansman is an American and America is his home.
But the priest owes his allegiance to a Dago Pope in Rome.

Nearby Sturgis seems to have had a much more active Klan organization, but southern Lawrence County and especially Lead must have been a fertile area for any kind of anti-Catholicism, because there were so many Catholics living in the area. Two of the largest groups of miners, the Italians and Slavonians, were Catholic, and both retained distinctive customs of their old world homes that added to their visibility. Lead had such an important Catholic population regionally that from 1902 to 1930, with the exception of one short period, it was the See for the Catholic Diocese of western South Dakota. Before 1910, there had been intermittent attempts to start special Catholic schools in the area. In 1911, in Lead and 1918 in Deadwood, parochial elementary schools were started that would operate continuously into the 1960s.

The Klan was the most public manifestation of anti-Catholicism in the area. This organization had a membership of over 400 in Lead and Deadwood between 1922 and 1925, and it engaged in typical activities: cross burnings, parades, and so forth. At one point, 50 uniformed Klansmen attended a service at the Lead Episcopal church as a group. Although there was a confrontation between soldiers and Klansmen in Sturgis, there was no violence associated with Klan activities in this area.

There were other indications of anti-Catholicism as well. One incident that could have been part of such a movement is the still unexplained murder of Father Belknap, a priest, in 1921. Certain organizations would not hire Catholics. The Homestake would not move them into management positions, and the public schools would not hire them at all until after World War II.

The decline of Klan activity was fairly rapid; the organization does not seem to have survived the 1920s in Lead or Deadwood. Less public forms of prejudice lasted longer, but anti-Catholicism is no longer an important force in southern Lawrence County. The main reason for its decline seems to be the complete assimilation of all the various European ethnic groups into the mainstream of American culture. There are very few surviving customs that visibly distinguish one group from another, as had been the case in the early part of the century.

## The Depression

In general, there is an inverse relationship between the economic health of the nation and that of its gold mining regions. The Depression proved to be a boom period, especially for Lead, while the war and the 1950s, which were generally more prosperous for the country as a whole, brought hard times to the area; these were alleviated only in the 1970s, when inflation brought a jump in the price of gold.

Perhaps the clearest indication of inverse relationship is the stock market crash of 1929. As the prices of most stocks dropped dramatically, gold started to look very good, and Homestake stock that had been selling at about $50 a share began to climb. It quickly passed $100 per share and kept going. By 1936, it was selling for $544. The next year, after an 8 for 1 split, it re-opened at $48 and stayed strong (Fielder, 1970, p. 321).

The big jump in the price of gold after Roosevelt became president was not the only reason for the mine's prosperity, but it is one of the easiest to see. At the beginning of 1933, gold sold for $20.67 an ounce. Over the next 13 months, Congress and the President changed their gold policy a number of times until January 31, 1934. At this time, the price of gold was fixed at $35 an ounce, where it would stay for almost 40 years (Furze, 1964, pp. 18-19).

Large profits and unemployment allowed the Homestake to undertake a major expansion program during the 1930s. Unemployment had begun before the Depression and allowed the Homestake to use the "rustling" system for getting new workers. The Homestake employment office opened onto a small yard where several men would sit "rustling" (i.e., waiting to be hired). At intervals the employment director would come out and yell out the names of those who would be taken on. Men who were not on hand were not hired. As businesses folded and drought turned agricultural South Dakota into a dust bowl, the number of men waiting for work rose from 20 or 30 to several hundred.

Under these circumstances it was possible for the Homestake to undertake a number of building projects. The Ellison shaft on the south side of Gold Run Creek was rebuilt and later supplemented by the Ross shaft. Before the decade was over, the Yates shaft which replaced the Ellison was begun. All of these descended to 5,000 feet. Other projects during the 1930s included a housing project to hold the expanded mine crews, the construction of the Kirk Power Plant, and expansion at the South Mill (Fielder, 1970, pp. 294, 308, 324). The Depression building program proved to be very fortunate, for it gave the mine a basic plant that would adequately carry it through the lean period in the 1950s and 1960s, when new construction would be very difficult.

In spite of the fact that the mine had a large labor surplus, in 1933 wages were raised and the work week was shortened. With prosperity in Lead and hard times elsewhere, it is not surprising that the local population grew markedly during the Depression. In 1935, Lead reached its post-World War I peak population of 7,844, a gain of over 2,000 in five years. By 1940, the number of people had declined to 7,520 in Lead and 4,100 in Deadwood. Since then the population has declined continuously.

The caving in of the open cut continued into the early 1930s. In 1932, however, a method of filling previously empty stopes with finely ground wastes from the milling process was developed as a means of effectively halting the subsidence. The open cut proved to have positive as well as negative repercussions at this time. At the time, the Lead school system was considering building a new plant to replace the crowded junior-senior high school on what is now the Central Campus. Concurrently, there was considerable fear that the subsidence might spread as far as the school buildings, so the Homestake offered to make a $250,000 settlement for possible damages to help defray the cost of the new building, which was finished before World War II at a cost of $500,000. Since Homestake was paying 65% of the district's taxes, it wound up paying well over half the cost of the new school (Furze, 1964, p. 26).

Events of the Depression greatly increased the Homestake's interest in state politics. Most of the state, which is agriculturally oriented, was severely hit not only by a plague of grasshoppers, but also by the 1930s' drought which affected all the Great Plains States. Low farm prices as well as adverse natural conditions were driving the farmers off the prairies. Since gold mining was the only aspect of the state's economy that was prospering, the legislature began considering a special ore tax in 1933. The tax, which was passed in 1935 in spite of a major lobbying effort by the mine's legal staff, was designed so that it only affected the Homestake and none of the smaller mines still alive in the state. In the first year, proceeds from this tax amounted to $750,000, one-third of the state's budget. Again, in 1937 the ore tax came before the state legislature and was raised by 50%, bringing the amount collected to $1,125,000. Although the mechanics of the ore tax would change, some version of it would remain in effect until the late 1960s (Fielder, 1970, pp. 312, 322).

The state's special interest in the Homestake prompted the mine to become more deeply involved with the legislature in Pierre. Kenneth Keller, a Homestake attorney, served as Lawrence County's state senator from 1937 through 1941, and afterwards the mine worked to ensure that local legislators would support its interest and wherever possible work against the ore tax. In the late 1930s, the mine also began providing educational material for wide dissemination that publicized its contribution to the community and state as well as its operating problems (Fielder, 1970, pp. 312, 322).

The benefits of the Depression for the gold industry were not limited to the Homestake. The increase in the price of gold enabled five small lode mines in the area to reopen. Their revival was slow but successful, as it was first necessary to unwater and repair the underground area, resample and project operations, and repair the mills and other surface works. Placering also became profitable again, and between 1930 and 1934 the number of such operations increased from 4 to 43. The kinds of operation ranged from individual prospectors with their pans to fairly sophisticated arrangements based on modern equipment (Furze, 1964, pp. 20-21).

## World War II

The Depression was a high point in the history of the Lead-Deadwood area, but the Second World War was its nadir, because it brought a temporary closing of the mines. In 1941, the Homestake produced $19.5 million worth of gold and silver and Bald Mountain produced just under $1 million. These figures were typical for the preceding five years. As the country geared up for the war, in the year that followed, the War Production Board gave gold mines a very low priority. The problems local mines had finding labor and necessary supplies put an end to the small operations that had been started during the Depression and curtailed production in the two larger mines. Later in the year, Production Board Order L-208 required the closing of all mines as of October 8, 1942. Homestake won a reprieve that allowed it to continue lifting and milling ore that had been broken before that date until June, 1943. As a direct result of the order, gold production for the county was reduced to $18.3 million in 1942 and to only $3.8 million the following year.

The order that closed the mines almost completely closed Lead as well. The Homestake work force was reduced from 2,200 men to about 800. Most of these were employed in war production work like sorting scrap metal and making hand grenades. Approximately 1,600 families left the area. Houses were emptied and boarded up, since there was no one to buy or rent them. Only about 500 miners left the area to join the armed services, but the major reason for closing the mines was to divert skilled mining labor into the production of strategic metals, and a large number of people moved to Montana to work in the copper mines. In fact, World War II is considered by many residents to be a watershed because of the demographic changes that it caused. Many of the younger local residents who left the area during the war never came back, so that what might now be a large set of "older families" was scattered throughout the country.

The war also contributed to the ending of a number of local institutions. On August 31, 1942, the Hearst Mercantile Company building burned down. Although the Homestake no longer was affiliated with the store, it was said to be the largest department store in South Dakota. Because of the shortage of merchandise and the impending closing of the mine, the store was never reopened. Although Prohibition had not impaired gambling and prostitution in the area, the war also caused a severe decline for these activities. When the mines were closed, these establishments lost a major clientele, and a potential replacement was eliminated when the military declared Deadwood off-limits to all personnel. This order was so rigidly enforced that residents who were home on leave were literally prisoners in their own homes. Simultaneously, there was a major police crackdown on gambling in the area in 1942-43, which, combined with the loss of clientele, brought an end to the gambling and prostitution organizations. Several attempts to revive gambling after the war were unsuccessful.[10] Two or three houses of prostitution continue to operate at the lower end of Main Street in Deadwood, but they are only pale shadows of what they were before 1942.

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[10] Interviews conducted by Dr. David Miller, Black Hills State College.

## The Post-War Years

The years from 1945 right up to the late 1960s and early 1970s were difficult ones for this area because a number of local, national, and international conditions combined to put the gold industry in a very precarious position. The Homestake and Bald Mountain were allowed to reopen July 1, 1945, but until the war with Japan ended, low priorities for gold production and commitments of part of the Homestake plant to war-related work--as well as special maintenance work that accompanied start up--severely limited production. Homestake only produced $1.9 million in bullion that year.

It would be another decade before gold production reached pre-war levels; and when it did, it would not be nearly so profitable. From 1935 to 1941, the Homestake produced a little over $19 million in bullion per year. The 1946 production was only $10.5 million, and the $19 million figure would not be reached again until 1956. The year before the order to halt production came, the company paid dividends of $4.25 per share, but in 1956, Homestake's earnings per share from gold were only about $1.80. In 1963, when $20.3 million in gold was produced, earnings from gold were less than $1.00 per share (Furze, 1964, pp. 57,61).

A number of factors caused the decline of the gold industry. One big problem was getting an adequate labor supply. At the end of 1945, only 165 of the 498 local mine workers who had left the area for the service had returned to their former employers (U.S. Department of the Interior, Minerals Yearbook, 1945, 1947). The number of people who returned from the West Coast ship yards and the copper mines was also low. Two years later, the labor supply was reported to be only 60% of what was required for "normal operations." In 1949, Homestake

Mills, which could handle up to 4,000 tons of ore a day, were averaging only 3,034 tons per day because of a labor shortage. That year the Homestake work force was only 90% of its size in 1941, and it dropped further in the following years until it leveled off at about 80% of its pre-war number (Furze, 1964, p. 42). The labor problem also had a qualitative aspect as it became more and more difficult to get skilled underground miners and the turnover rate became higher. In order to cope with this shortage of skilled workers, Homestake lengthened the work week from 42 to 48 hours.

The mine was also caught in a squeeze between the price of gold, which remained fixed at its 1934 price of $35/oz. and rising production costs. In order to keep any work force at all, the company gave a large number of small (usually 7¢/hr.) raises during the 1950s and early 1960s, but its wages were still lower than those paid in most other Western mines. The company payroll jumped from $4.5 million in 1941 to $11.3 million in 1964, while the annual cost for equipment and supplies went from $1.2 million to $5.2 million (Fielder, 1970, p. 433). At the same time the grade of ore continued to decline, and as the ore bodies above the 5,000 foot level were used up, it became necessary to extend the mine even farther into the earth. Extending the mine led to new expenses for lengthening shafts, drifting to new lower ore bodies, and providing air conditioning equipment to cope with the high rock temperatures (as much as 120° below the 6,000 foot level) that would otherwise keep men from working.

The decline in gold profits raised the specter of the possible closing of the mine, although never as drastically as in the early 1920s, when it was feared that the Homestake vein had come to an end. Even so, the threat of the mine closing tended to encourage a long standing sense of pessimism, especially in Lead. Yet a number of steps could be taken to cope with rising costs. At the Homestake Mine itself, the only kinds of action possible were those that cut costs or raised production. The mine went through a major mechanization campaign in the early 1950s. One by-product of this campaign was the final elimination of stamp mills in Lead. Their pounding din had been part of the town since before the Homestake Mine was formed. In the early 1960s, the major departments of the mine were reorganized in ways that did more to improve efficiency than to cut the number of employees.

As gold profits declined, the Homestake Mining Company also found it necessary to diversify its holdings. In 1950, the company moved into the uranium field, and by 1955, extraction of this new metal was producing more income than was the South Dakota operation. The company's main office had always been in San Francisco, but as long as its only source of revenue was the Lead gold mine, its interests and the region's would remain closely interlocked. The addition of mines in other Western states and even other countries gave the company more the character of an absentee owner.

The period of financial squeeze on the Homestake gold operation was a long one, lasting from the end of the war to 1968. That year the inflationary pressures that had forced up production costs began to show their beneficial side effects, as the limitation on the price of gold was essentially lifted when the U.S. Treasury withdrew as a gold purchaser and sales were allowed on the domestic market. The mine was then able to sell its gold for from $37 to $43 an ounce.

The post-war period also saw the local resurgence of unionism in mining. The first attempt to organize Homestake workers since 1910 came in 1947, but union success was not achieved for another 20 years. Table 5 indicates the slow progress of union organizers in that time. While the trend is not clear, support for unionization does seem to have grown with time. Perhaps because they had absorbed the remains of the old WFM and had a great deal of experience with Western hardrock miners, the steelworkers were more successful than any of the other unions and finally won the right to represent the miners.

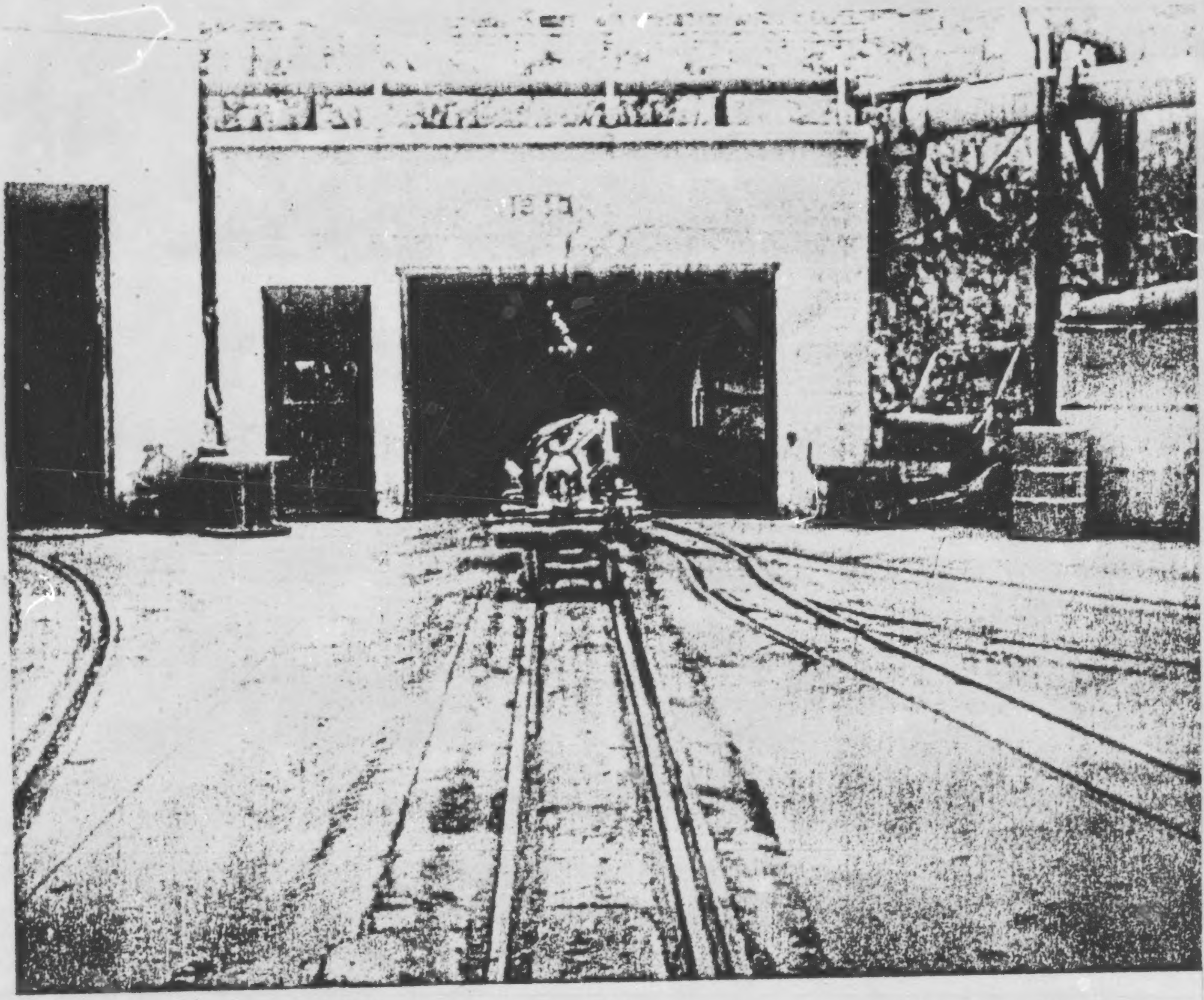

Fig. 10. Homestake Mine equipment tunnel.

Table 5

OUTCOME OF ELECTIONS ON UNIONIZING:  1947-66

| Year | Name of Union | % Against Union |
|---|---|---|
| 1947 | United Mine Workers | 81.84 |
| 1951 | United Steel Workers | 60.59 |
| 1953 | United Steel Workers | 59.67 |
| 1955 | United Steel Workers | 57.69 |
| 1957 | United Steel Workers | 59.17 |
| 1963 | International Union of Operating Engineers | 67.58 |
| 1966 | United Steel Workers | 37.84 |

Source:  Furze, 1964, p. 47; and Fielder, 1970, p. 438.

The various election campaigns emphasized two issues: benefits and control.  The union emphasized the low salaries the Homestake paid.  During the 1955 campaign, it said that Lead miners made $2 a day less and worked 30 minutes longer than any miners in the West except those in Butte, who worked 15 minutes more (Levine, p. 526). The mine emphasized the fringe benefits it offered in the way of hospitalization, pensions, and recreation facilities.  Homestake also pointed out the economic constraints under which it was operating.  The accusations of the two sides strongly suggested that local workers had no choice about whether their lives would be controlled from afar.  The only question was whether decisions would be made for them from San Francisco, where the company had its headquarters, or  Pittsburgh, the home of the United Steel Workers, or some other town.  The company also played on the fear of many miners that the union might force them into a costly strike of which they disapproved.

The community institutions that took part in the unionization

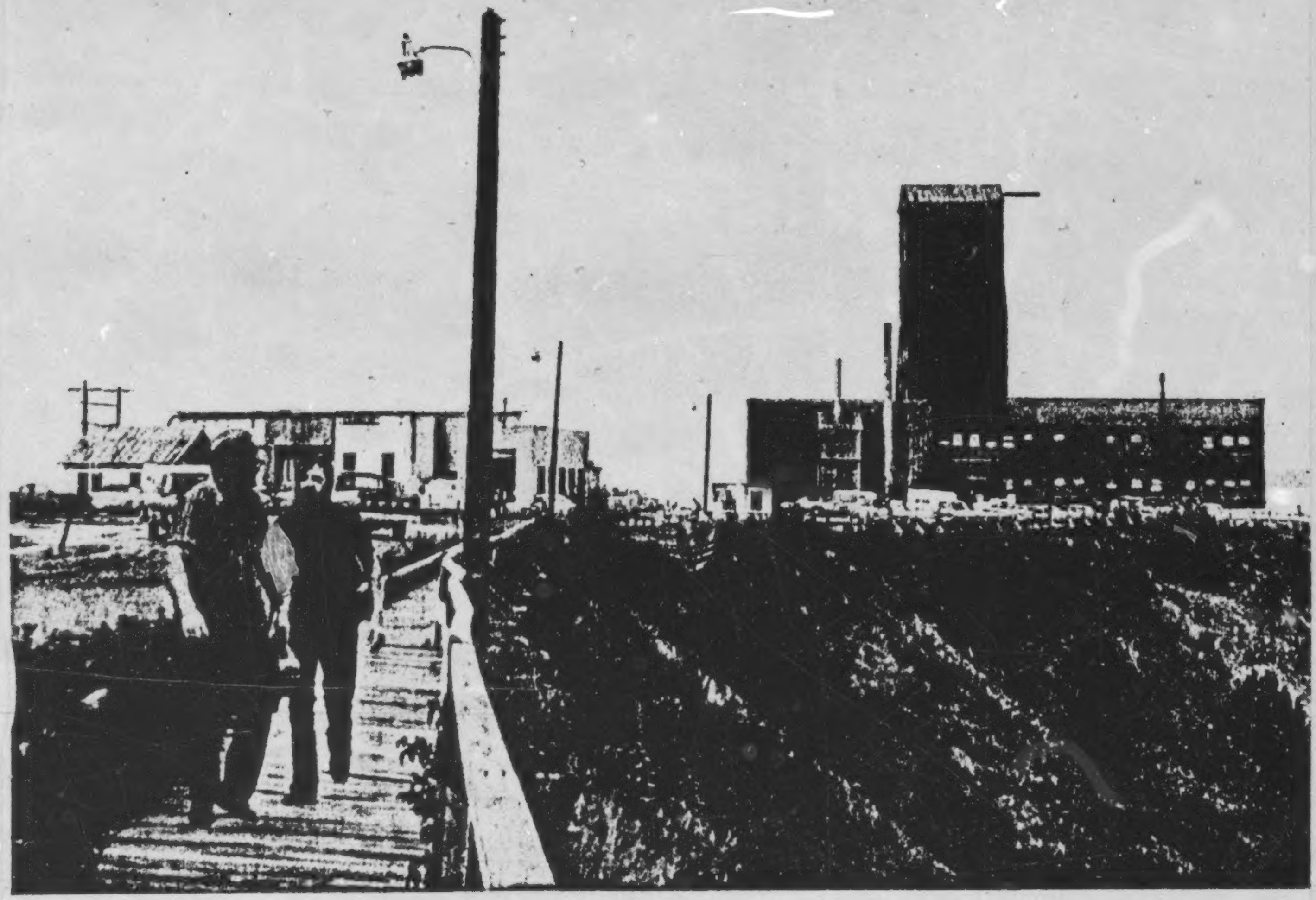

Fig.11. Homestake miners at the end of their shift.

struggle lined up in support of the Homestake. In 1953 the Lead and Deadwood Chambers of Commerce invited Cecil B. DeMille to speak locally, and he delivered a general attack on organized labor. In addition, the Lead Daily Call and Rapid City Journal, the only newspapers serving the area, were consistently anti-union in their editorials.

There seem to be three major reasons for the final success of union organizing efforts. The most important may be related to demographic turnover. In the 1947 election there were still a large number of miners who remembered the events of 1910. These men and, to a lesser extent, their sons, had seen or heard about what the company could do and may have been most susceptible to arguments about getting forced into strikes they did not want. Over time the older men retired. The turnover caused by the war and post-war labor problems insured that these men would not be replaced by a second generation that held similar attitudes, but by new people who were not aware of the town's previous experience and so would not be as anti-union. Second, the same problems that caused high labor turnover and problems in getting an adequate work force--low salaries, a long day, and some of the effects of various efficiency drives--would also make a formal bargaining agency more popular to those who remained. Finally, unions were a much more established, legitimate part of American life in the 1950s and 1960s than they had been earlier.

The organization of Homestake miners does not indicate any important shift in the political organization of the area. As shown in Table 6, Lawrence County remained as solid a bastion of Republicanism after the war as it was before. The Homestake continued to be a powerful force in local politics. Joe Dunmire, director of the Homestake Recreation Building, was a state representative in the 1950s. Along with other Lawrence County legislators, he successfully worked for the gradual reduction of the ore tax.

Table 6

## LAWRENCE COUNTY ELECTION RESULTS: 1928-1968

| Year | Type of Election | Republican | Democratic |
|---|---|---|---|
| 1928 | Presidential | 4,100 | 1,700 |
| | Congressional | 3,900 | 1,950 |
| 1936 | Presidential | 5,000 | 3,800[a] |
| | Senatorial | 5,000 | 3,300 |
| 1944 | Senatorial | 3,800 | 1,200 |
| | Gubernatorial | 3,900 | 1,400 |
| | Congressional | 3,900 | 1,400 |
| 1956 | Presidential | 4,600 | 1,800 |
| | Senatorial | 4,100 | 2,300 |
| | Congressional | 4,100 | 2,300 |
| 1958 | Gubernatorial | 3,400 | 2,300[b] |
| | Congressional | 3,600 | 2,000 |
| 1968 | Senatorial | 3,545 | 3,463[a] |
| | Gubernatorial | 4,300 | 2,600 |
| | Congressional | 4,400 | 2,600 |

[a] These were big Democratic victories in the state.

[b] This was the largest county victory for the losing candidate.

## School District Consolidation

Perhaps the biggest change in education in the Lead-Deadwood area in the post-war period was the consolidation of school districts. On paper there were 37 separate districts in Lawrence County in 1960-61. These ranged from the Lead district with 1,869 students to the one in nearby Dumont that had only two. Many districts did not provide direct services to their students at all. Ten of the 37 districts ran elementary schools with classes through the eighth grade, and only three--Lead, Deadwood, and Spearfish--had high schools. The remaining 24 districts bought educational services from the operating districts, especially the three high school or Independent Districts (Lawrence County School Board, "A Master Plan for School District Reorganization").

In response to local conditions and state pressure to consolidate school districts, a county school board was formed that developed a plan to reorganize education. In its plan the county board pointed out that with the decline of the rural agricultural population and (more important in the southern part of the county) the gradual shrinkage of the outlying mining towns, most of the rural districts were too small to function. Because these districts were already sending their children to the town schools, the board said consolidation was already underway and should be recognized on paper. Formal reorganization would provide administrative units that could better meet the growing demand for better educational programs with more continuity. It would also ensure that members of the outlying districts fully shared the financial burden of supporting education (which the tuition system did not do) and would allow them to vote for school board members (Lawrence County School Board, "Master Plan for Reorganization"). The Board's plan divided the county into three separate districts. Six of the smaller districts would be attached to Lead, eight to Deadwood, and sixteen to Spearfish. The five remaining districts would be attached to Sturgis in Mead County.

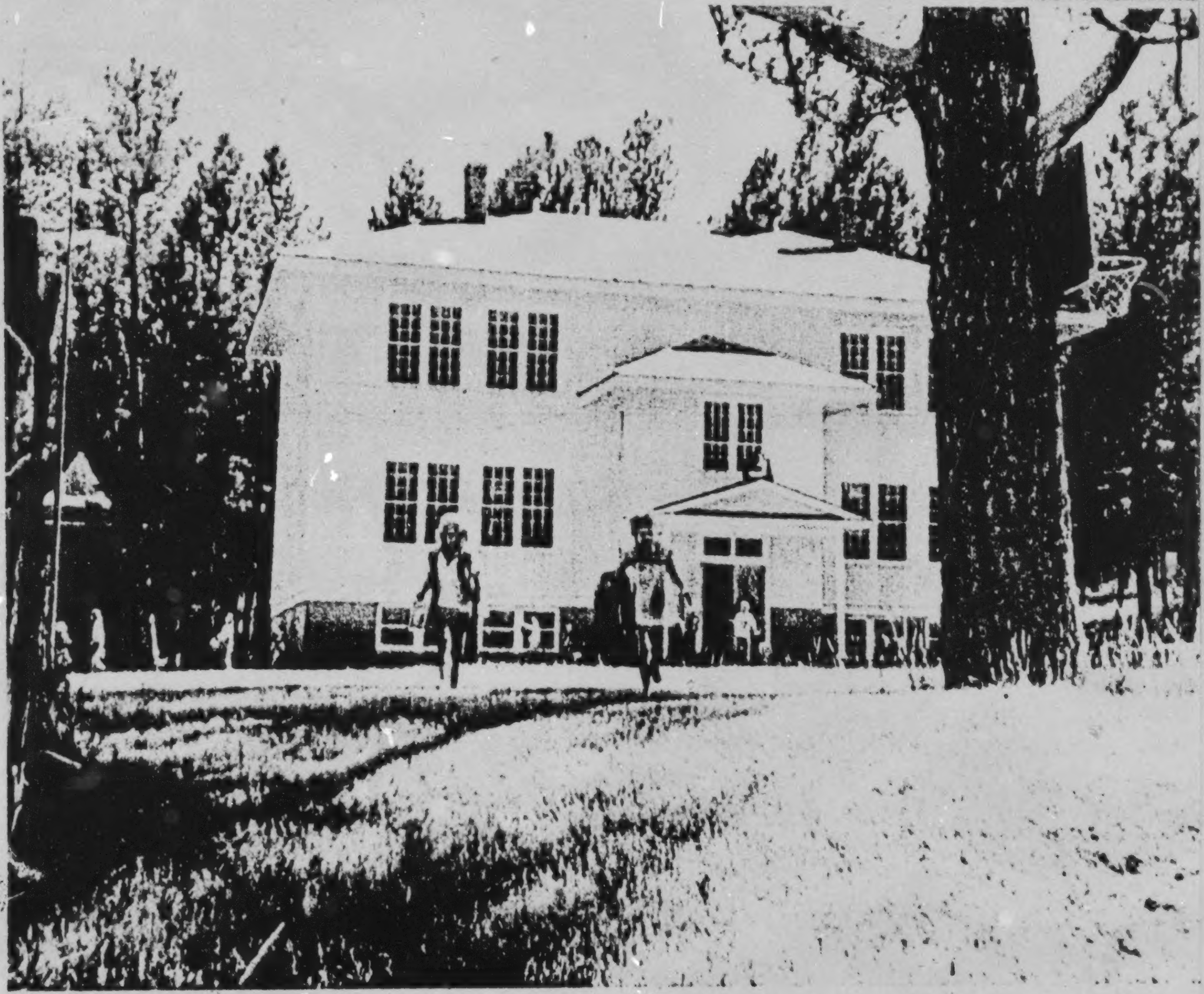

Fig.12. Nemo School.

Most of the plan was quickly implemented. In 1964, the majority of the outlying districts were attached to the high school units. By 1967, only four elementary school districts remained--Terraville, Pluma, and Nemo in the southern part of the county and St. Onge northeast of Spearfish. Nemo, Pluma and Terraville continued to pay into a county high school tuition fund to send their children to high school. The fund was administered by the county probably through the now defunct office of the county superintendent of schools. The money was raised by an 8.5 mill tax on all property in the three districts. Money from these districts was paid into the fund as follows: Pluma: $19,415, Terraville: $9,016, and Nemo: $2,670.

The focus of the consolidation problem now shifted to the impoverished Deadwood district. During a six-year period ending in the spring of 1967 that district had run in the red three times, so that it overspent its income for operating expenses by $105,000. The problem was that Deadwood lacked the tax base necessary to run a school district. A report to the county board in 1967 showed that if the consolidation plan were carried out so that the Terraville district were attached to Lead, and Pluma and Nemo to Deadwood, the property in the resulting Lead district would be worth $24 million, while that in Deadwood's district would be worth $11 million. Although Lead would have 2,028 students and Deadwood only 1,122, the difference in taxable property per student would remain considerable. Lead would have $11,994 per student and Deadwood, $9,915 (DeBow) (Tables 7 and 8).

The actual financial positions of these districts differed more than these figures indicate due to the fact that Pluma, an unusually wealthy district because a good portion of the Homestake property was within its boundaries, was never attached to Deadwood. Figures for 1961 show that the pre-consolidation Deadwood district had 835 pupils and a $6 million tax base, while Pluma only had 62 students and a $2 million tax base (Lawrence County School Board, "Master Plan for Reorganization").

Table 7

BUDGET, FACILITIES, AND PERSONNEL OF PLANNED LEAD-TERRAVILLE CONSOLIDATION

| | Lead | Terraville |
|---|---|---|
| Assessed Valuation | $23,261,239 | $ 1,063,252 |
| General Fund Expenses | $ 1,032,849 | **data missing** |
| General Fund Income | | |
| County taxes | $ 850,741 | " |
| Exceptional children (local) | $ 3,013 | " |
| Tuition from other schools | $ 25,384 | " |
| State aid | $ 89,212 | " |
| Apportionment (mostly state, some county) | $ 30,591 | " |
| All federal | $ 14,437 | " |
| Balance forwarded | $ 109,159 | " |
| Other | -- | " |
| Total | $ 1,131,845 | " |
| Facilities | Central Campus:<br>Constructed: 1896<br>Additions: 1914, 1924-25, 1964<br>Classrooms: 27 Auditorium: 1<br>Music room: 1 Other: 3<br>Gym space rented from Lead Armory and Homestake Rec. Ctr.<br>Lead High:<br>Constructed: 1940<br>Additions: 1964<br>Classrooms: 32 Auditorium: 1<br>Music room: 2 Shops: 3<br>Gym: 1 Other: 27<br>West Lead:<br>Constructed: 195[illegible]<br>Classrooms: 7 Other: 1<br>South Lead:<br>Constructed: n.d.<br>Classrooms: 3<br>Washington:<br>Constructed: 1937<br>Additions: 1957<br>Classrooms: 7 | Constructed: n.d.<br>Old frame building<br>Classrooms: 4 Other(kitchen): 1<br>Gym: 1 |
| Personnel | | |
| Enrollment | | |
| K-8 | 1,398 | 59 |
| 9-12 | 577 | no high school |
| Graduates | | -- |
| College | 56 | -- |
| Other post-high institutions | 4 | -- |
| Full-time work | 24 | -- |
| Military | 14 | -- |
| Married | 14 | -- |
| No information | 3 | -- |
| Total | 115 | -- |
| Professional staff | | |
| Full-time administrators | 5 | -- |
| Teacher administrators | 4 | -- |
| Full-time elem. teachers | 60 | 3 |
| Full-time h. s. teachers | 36 | -- |
| | 105 | 3 |

Table 8

BUDGET, FACILITIES, AND PERSONNEL OF PLANNED DEADWOOD-PLUMA-NEMO CONSOLIDATION

| | Deadwood | Pluma | Nemo |
|---|---|---|---|
| Assessed Valuation | $8,521,410 | $2,289,528 | $314,691 |
| General Fund Expenses | $ 442,830<br>(from budget, not expenditures) | $ 53,889 | $ 10,000 (about) |
| General Fund Income | | | |
| Balance Forwarded | | $ 22,691 | |
| County | $ 219,430 | $ 30,501 | |
| Tuition | $ 30,846 | | |
| State | $ 73,719 | $ 4,306 | |
| Federal | $ 13,917 | | |
| Other | $ | $ 74 | |
| Total | $ 442,419 | $ 58,883 | |
| Facilities | Deadwood Building:<br>Constructed: 1896<br>Additions: 1924, 1955, 1962<br>Classrooms: 34 Music: 2<br>Gym: 1 Shops: 3<br>Auditorium: 1 Other: 6<br>Central City School:<br>Constructed: 1938<br>Classrooms: 3 Other: 1<br>Gym: 1<br>Deadwood Armory (rented):<br>Classrooms: 2 Gym: 1<br>Deadwood Rec. Center (rented):<br>Use of pool | Building:<br>Constructed: 1940<br>Additions: 1950, 1956, 1964<br>Classrooms: 4 Other: 1<br>Gym: 1 | Nemo School:<br>Constructed: 1926-27 (by the Homestake for sawmill personnel)<br>Classrooms: 4 (2 are usable) |
| Personnel | | | |
| Enrollment | | | |
| K-8 | 787 | 58 (no K) | 40 (no K) |
| 9-12 | 321 | -- | -- |
| Graduates | | | |
| College | 28 | -- | -- |
| Other post-high schools | 5 | -- | -- |
| Full-time work | 16 | -- | -- |
| Married | 6 | -- | -- |
| Military | 17 | -- | -- |
| No information | 6 | -- | -- |
| Total | 62 | -- | -- |
| Professional Staff | | | |
| Full-time administrators | 3 | -- | -- |
| Full-time elementary teachers | 27 | 3 | 2 |
| Full-time h.s. teachers | 3 | -- | -- |
| Total | 49 | -- | -- |

In spite of the differing financial bases of the Lead and Deadwood school districts, their curricula were fairly similar and fairly traditional. In the mid-sixties, the Deadwood elementary school curriculum consisted of, in the words of a Deadwood principal, "all the standard things prescribed by the State Department of Public Instruction." In addition, it had specialists for elementary remedial reading, music, and physical education. Classes averaged about 30 students. The high school curriculum included year-long courses in social science, mathematics, French, physical education, English with debate, declamation and plays, business education, and home making. Title III money was being used to develop the library. Financial pressure did not affect the curriculum until after 1967, when staff and some programs were cut back--especially in the elementary school--and the Central City school was closed. It has been suggested that the availability of federal money as a result of the passage of ESEA was a major impetus to educational innovations in the western part of the state, especially in districts as small as Deadwood's. Before then (as a district principal suggested), "schools didn't change very much. You ordered books every so often. I suppose it was easier, but the kids didn't do as well." After ESEA money became available, however, the Deadwood administration was so busy with its general budget problems that it had no time to develop special programs.

Like the Deadwood district, the Lead system of the early and mid-sixties was traditional and subject-matter oriented. It operated from a course of study that was rigorously enforced by an assistant superintendent for curriculum. A major aspect of this course of study in the elementary schools was a schedule that indicated how many minutes per week should be allocated to specific subject matter areas (Figure 13). Refinements of this subject-matter orientation consisted of ability grouping and various teaching assignments that encouraged subject-matter specialization. Since Sputnik, for instance, Lead's Central Elementary School sought ways to allow teachers of older students to teach only their strongest subjects. A "departmental" system was begun in 1964-65 so that in both the fifth and sixth grades, five classes of students rotated as groups among five teachers: one each for reading, language arts, arithmetic, science, and social studies. In addition, the district

| GRADE | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| Total Minutes Scheduled Per Week | 1500 | 1650 | 1800 | 1800 | 1800 | 1800 |
| Opening Exercises | 50 | 50 | 50 | 50 | 50 | 50 |
| Reading | 560 | 550 | 550 | 230 | 225 | 225 |
| Arithmetic | 150 | 175 | 200 | 225 | 225 | 225 |
| English | 75 | 110 | 150 | 225 | 225 | 225 |
| Social Studies | 75 | 120 | 155 | --- | --- | --- |
| Geography | --- | --- | --- | 150 | 225 | 225 |
| History | --- | --- | --- | 135 | 135 | 135 |
| Science & Health | 75 | 120 | 140 | 140 | 140 | 140 |
| Spelling | 75 | 75 | 75 | 75 | 75 | 75 |
| Handwriting | 75 | 75 | 75 | 75 | 75 | 75 |
| Music | 50 | 60 | 90 | 90 | 90 | 90 |
| Art | 90 | 90 | 90 | 90 | 90 | 90 |
| Physical Education | --- | --- | --- | 90 | 90 | 90 |
| Recess | 150 | 150 | 150 | 150 | --- | --- |
| Passing Recess and Milk | 75 | 75 | 75 | 75 | 75 | 75 |
| Spanish | --- | --- | --- | --- | 80 | 80 |

(Figures refer to the recommended number of minutes per week)

Fig. 13. Lead Public Schools suggested time allotment schedule, September, 1960.

hired elementary specialists in physical education, vocal music, instrumental music, and art. The high school curriculum at this time offered English, including creative writing and debate; science, including chemistry, biology, and physics; mathematics, including algebra, trigonometry, and geometry; social science, including social problems, world geography, and American and world history; business education, including economics, bookkeeping, typing, shorthand and office practices; home making; shop, including machine shop, mechanical drawing and woodworking; languages, including German, Latin, Spanish and French; band and vocal music; art; and physical education. By 1967 the district was beginning to seek ways to reduce its heavy subject orientation and become more child centered. A Title I grant allowed the district to run a summer school which was the focus for innovation in the high school. It experimented with an open campus and teaming, and the high school English department carried a limited form of teaming into the regular school year. Cooperative planning increased, and occasionally classes were combined in the auditorium for special purposes. At the elementary level ways were sought to revise and add flexibility to the time schedule.

Because of legal and political difficulties involved in gaining more revenue for Deadwood by raising taxes, the "logical" solution to that district's problem seemed to be attachment to Lead. This action would have two other technical advantages: it would equalize resources available for education in different parts of the county, and it would create a large and probably more efficient school district. While this consolidation solution was attractive to students of school administration, it did not take into account the important role that small town school systems play in maintaining community integration. Alford (1960, pp. 350-371) has pointed out the interactional and symbolic means by which a school system can contribute to such integration. The school provides a setting for sustained personal interaction among a large proportion of a town's population--its children--and because this setting is also the major source of these people's social contacts, it promotes an important investment of self in its activities. Furthermore, all schools--but especially high schools--provide a series of social occasions such as plays, concerts, and graduation exercises that allow interaction opportunities for adults. Part of the school's symbolic importance stems from the fact that it is one of the few important institutions over which there is still some local, as opposed to state or federal, control. High schools play two other symbolic roles. First, as they become scarcer because of consolidation, high schools become prized resources that contribute to community prestige. Second, the school's sports teams become important community representatives that carry out symbolic conflicts with other communities, and these conflicts help maintain the boundaries of the communities involved.

The problem of boundary maintenance seems to have been an especially difficult one for Lead and Deadwood because they were so closely intertwined. Not only were they physically close, but both depended a great deal on the Homestake for their existence, and Deadwood's business center was the shopping area for both towns. Although the towns were closely interrelated, they were also separate entities, and maintaining that separation was difficult. The result was an intense rivalry that was played out in part through the two high schools. As a result, any attempt to integrate the two school districts and their high schools would be resisted by townspeople because it would eliminate an opportunity to maintain the distinctness of the two communities.

This context of community rivalry proved to be a major parameter that affected the solution of Deadwood's financial problems.[11] The two boards were attuned enough to the financial and administrative advantages of consolidation to meet together at least once in 1967. In February consideration was given both to complete consolidation and to a half-way measure of sharing a superintendent and central staff to cut down administrative overhead in both districts while maintaining their integrity; however, both proposals were rejected.

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[11] All of the following information comes from the Lead Dai[illegible] Call-Deadwood Pioneer Times, 1967-71.

By June, 1967, the Deadwood board felt its financial situation was so difficult that the district could not continue for more than another year without taking some drastic action, and it saw only two possible alternatives before it. First, because the district was already taxing its citizens at the maximum legal rate, it could vote a special additional 10 mill levy. Second, it could vote to dissolve. Both courses of action required ratification by the voters, but the first course of action required 75% voter approval and would have to be voted on annually (a one-year special assessment would not be adequate), while the second approach only required 60% approval and would only happen once. Dissolution would lead to the attachment of the defunct Deadwood district to another and presumably richer school system. At a later meeting the Deadwood board elaborated on its weak financial condition by pointing out that the operating budget would jump from $508,000 in 1966-67, to $561,000 in 1967-68, and that on top of that a $37,000 deficit had to be carried forward. If some financial help was not forthcoming, drastic program cuts would be needed.

At the October meeting, the Deadwood board voted to dissolve and pointed out an additional aspect of its problem--underassessment. According to the board, the county was supposed to assess property at 60% of true value, but it really assessed at only about 40%. The Deadwood board had requested the county commissioners to assess at a higher rate than they currently were, but they refused. In the seven years that followed, the various school districts in the county made repeated attempts to get the commissioners to assess at a higher rate and pointed out that the state was withholding aid to local schools in some instances because it felt the county was underassessing, but none of these requests was heeded.

The election on whether to dissolve the district was set for the second week of December, and the publicity campaign that had been going on for a year to bring the district's problems to the voters was stepped up. The board was worried that it did not have the general public support it needed, because at two fall meetings it complained of lack of interest or awareness on the part of the voters. One major reason many people opposed ending the district was that they assumed that the county board, which would decide the fate of the defunct Deadwood schools, would attach them to the Lead system. At the December meeting, the Deadwood board discussed the only possible outcome imaginable. Normally, elementary school systems are attached to high school systems, so previously Pluma had considered attaching itself to Deadwood and rejected the idea. However, Deadwood could ask to be attached to Pluma. The resulting income would go a long way towards alleviating the Deadwood district's current financial difficulties. The only alternative the board could see to dissolving the district was increasing the pupil-teacher ratio, doubling grades in some elementary classrooms, and cutting out band, physical education and other activities. These program cuts would lead to loss of accreditation for the Deadwood High School. On December 12, 1967, in a light turnout (781 out of a possible 2,050 voters), the people of Deadwood essentially rejected the proposal to dissolve the district by a vote of 413 for to 368 against; in other words, the proposal got 54% assent instead of the necessary 60%.

Because it was at a loss for alternatives, the Deadwood board once more asked the voters to consider dissolving the district, only this time the proposal specified that the Deadwood schools should be attached to Pluma. The Pluma board attended meetings with the Deadwood board before the vote that was scheduled for late February. In late January, however, it declared its opposition to the proposed reorganization. At the second election, 501 Deadwood people voted for attachment to Pluma while 344 voted against. The measure thus failed by six votes, but the increased support it received the second time is an indicator of the opposition which Deadwood residents felt toward attachment to Lead.

In the aftermath of two defeats at the polls, the Deadwood board found a course of action that would allow it to operate temporarily without the drastic cuts in program that had been contemplated. South Dakota law allows a school board under certain conditions to issue warrant bonds to cover past indebtedness, without a vote by the public. The board issued $280,000 of these bonds and through adroit management was able to achieve a $32,000 surplus by the end of the 1968-69 school year. Later events indicated that Pluma's resistance to consolidation with Deadwood was motivated more by financial concerns than thoughts of community integration. In November of 1969, the people of Pluma voted 42 to 14 in favor of attachment to the Lead district.

Issuing bonds was only a temporary solution to Deadwood's financial situation, and by 1969-70, it was in trouble again. This time, instead of going to the people, the board placed the problem before the State Elementary and Secondary Education Commission, which had been organized to deal with problems of school district consolidation. This commission also examined the status of the three remaining elementary districts in the county--Terraville, Nemo, and St. Onge. At hearings before the commission in January of 1970, it became clear that Deadwood was still trying to avoid what it apparently considered the stigma of attachment to Lead by proposing a county-wide school district. Financial considerations seemed to make such a plan unwise, however. The Spearfish superintendent argued that, while his district was able to balance its operating budget each year, it had no cash reserves to help finance the costs of reorganization. The Lead district had reserves at that time, but it was spending more than its annual income and using its reserves to make up the difference. (The superintendent has since indicated that the decision to spend reserves for regular operations was made in anticipation of increased state aid to education which as of 1974 has not materialized.) The Lead superintendent also argued against county-wide consolidation by pointing out that Lead had the highest salary scale of the three districts. Complete consolidation, he said, would require raising the salaries of all teachers in the county to match those in Lead, and would bankrupt the resulting system. After hearing arguments for all positions, the state commission chose to attach Deadwood and Terraville to Lead as of July 1, 1971, and to attach Nemo to the Rapid City system. The last decision was later reversed, and Nemo became part of the Lead-Deadwood system. Spearfish remained a separate unit.

During this time, the Lead School System was involved in a number of special programs to upgrade its reputation in the community or improve its staff. In 1970, the Lead High School received the Francis Bellamy award for that year. Receipt of the award required considerable effort by parts of the staff and community to prepare materials to submit to the Bellamy Board. The presentation was accompanied by a week of festivities in Lead that helped present the school system to its local community in a favorable light. Perhaps more important were a number of staff self-evaluations that various segments of the school system went through. The high school underwent extensive scrutiny as part of the North Central Association of Secondary Schools and Colleges evaluation, and the Lead Junior High played an important role in an attempt by the State Professional Practices Commission to develop teacher evaluation procedures. Because of state pressure, other schools in the system participated, but to a lesser extent. The Lead elementary schools also volunteered to undergo a self-evaluation designed by the Association for the Evaluation of Elementary Schools, which is affiliated with the University of Minnesota. Questionnaires were sent to staff and principals and analyzed in Minneapolis. Later, a committee of teachers met with one of the principals to formulate recommendations for improvement of the schools involved. These recommendations were never acted on because the following year the district became involved in planning for reorganization. But despite Lead's extensive evaluations of its educational programs, its high school curriculum remained remarkably similar to that of Deadwood (See Table 9).

The battle for consolidation of the Lead-Deadwood system was not over, however. In September and October of 1970, 650 names were collected on petitions to the Deadwood board asking for a restudy of attachment and arguing for separate systems. A great deal of the ferment caused by the decision to combine the two districts is not recorded in the newspapers, but steps had to be taken to deal with it. In November, the Lead district, which was the surviving body, took two actions. First, its school board ordered that all information disseminated from the schools concerning the reorganization effort should come through the Lead Public Relations Office. Second, a tri-party committee composed of school staff, community people, and students was established to discuss problems of consolidation and insure that community wishes were heard in connection with the planning that was then underway.

## Table 9

### COMPARATIVE COURSE OFFERINGS IN THE LEAD AND DEADWOOD SCHOOLS AT THE TIME OF REORGANIZATION

| Deadwood 68-69 | Deadwood 70-71 | Lead 70-71 |
|---|---|---|
| English | | |
| English 9<br>English 10<br>English 11<br>English 12<br>Speech<br>Journalism | English 9<br>Medieval Literature<br>College Prep grammar<br>Journalism<br>English Short Story<br>Semantics<br>Beginning Speech<br>Romanticism<br>American Novel<br>English Novel<br>Science Fiction Development | English 1<br>English 2<br>English 3<br>English 4<br>English 5<br>English 6<br>English 7<br>English 8<br>English 9<br>English 10<br>Debate |
| Science | | |
| Physical Science<br>Biology<br>Physics<br>Chemistry | Physical Science<br>Earth Science<br>Biology<br>Chemistry<br>Physics | Physical Science<br>Biology<br>Physics<br>Chemistry<br>Natural Science |
| Mathematics | | |
| Algebra<br>Geometry<br>Advanced Algebra<br>Senior Math | Algebra<br>Geometry<br>Advanced Algebra<br>Senior Math | Basic Math<br>Algebra I<br>Algebra 3<br>Geometry<br>Introduction to Algebra I<br>Introduction to Analysis |
| Social Studies | | |
| World History<br>American History and Gov.'t.<br>Psychology<br>Sociology | World History<br>American Studies<br>Anthropology<br>Economics<br>Psychology<br>Sociology | Freshman Social Studies<br>World History<br>American History<br>Psychology<br>Current World Affairs<br>Social Problems<br>Economics |
| Commercial | | |
| Shorthand<br>Bookkeeping<br>General Business<br>Typing I | Office Practice<br>Shorthand<br>Bookkeeping<br>Business Law<br>General Business<br>Typing<br>D.E. | Business Typing<br>Personal Typing<br>Office Occupations<br>D.E.<br>Accounting<br>Shorthand |
| Foreign Language | | |
| French I<br>French II | French I<br>French II<br>French III | German I<br>Spanish I<br>Spanish III<br>French III |
| Industrial Arts | | |
| Mechanical Drawing I<br>Mechanical Drawing II<br>Shop I<br>Shop II | Mechanical Drawing I<br>Mechanical Drawing II<br>Shop I<br>Shop II | Mechanical Drawing I<br>Mechanical Drawing II<br>Machine Shop<br>Woodworking I<br>Woodworking II<br>Woodworking III |
| Home Economics | | |
| Home Economics I<br>Home Economics II<br>Family Living | Home Economics I<br>Home Economics II<br>Home Economics III<br>Home Economics IV | Homemaking I<br>Homemaking II<br>Homemaking III |
| Physical Education | | |
| Freshmen Boys and Girls<br>Sophomore Boys and Girls | Freshmen Boys and Girls<br>Sophomore Boys and Girls | Freshmen Boys and Girls<br>Sophomore Boys and Girls<br>Junior Boys and Girls twice a week<br>Senior Boys and Girls twice a week |
| Music | | |
| Band<br>Chorus | Band<br>Chorus | Band<br>Chorus |
| Other | | |
| | Drivers Education<br>Arts and Crafts | Drivers Education<br>Art I<br>Art II<br>Art III |

Source: Deadwood School System

These actions were not enough to mollify opposition to the move in Deadwood, however, for in early March of 1971 a group of 30 residents got an injunction to halt reorganization, and planning was temporarily stopped. On the evening of March 10, the Lead, Deadwood, and county school boards were to meet privately to discuss reorganization, but this meeting became an open hearing when a large crowd turned out to witness the meeting. Most of the crowd apparently supported consolidation, because at that meeting some of the existing differences between the two district boards were ironed out, and the decision was made to proceed. Final plans for combination of the districts were passed by both boards in the following month.

Throughout this discussion, emphasis has been placed on opposition to consolidation in Deadwood and the feared loss of indentity and integration of that town. That is where most of the open discussion and conflict took place. But the same fears must have been prevalent in Lead as well, as the following excerpts from a letter to the editor of the Lead Daily Call-Deadwood Pioneer Times (December 22, 1970) indicates.

> The Deadwood District attached itself to the Lead District voluntarily. We didn't vote it in or refuse to accept it. But what was the first thing the Deadwood Board did after voting the attachment? They drew up a list of recommendations to the Lead Board...Now, consider the first, the very first of these recommendations. Did it concern education? No. Did it concern curriculum? No...the first and foremost thought on the minds of the Deadwood Board was their name...[That recommendation had been to call the newly formed district the Lead-Deadwood Independent School District--author] Why should Lead be recognized you ask? Well in the first place, by attaching itself to Lead, Deadwood is now just a part of the Lead District which has been in operation for some time. In the second place the Lead School Board is the governing body of the district and were (sic) elected by patrons of the Lead district...You say the name won't affect education, and that in itself is another vital reason why No change is needed in the name of the LEAD INDEPENDENT SCHOOL DISTRICT No. 106.

This letter indicates that inter-community rivalry existed in both towns, and both were concerned with symbolic questions such as the name of the new district and decision-making structures.

Because the need to maintain the separate identity of both communities was deeply felt by lay people it became an important consideration during the planning process for consolidation. This can be seen by looking at planning decisions made concerning building use, staffing, the name of the district, and the use of sports facilities. On November 11, 1970, the Deadwood Board presented a "plan" for combining the two districts that included the following features: a K-12 school system in each town; a superintendent and an assistant superintendent for the school system, with one being assigned to Lead and one to Deadwood; and a change in the name of the district so that it would be called the Lead-Deadwood district. The purpose of the consolidation, however, was to promote more efficient use of existing facilities as well as to equalize tax bases between the two towns, and efficient usage precluded duplication of facilities or assigning superintendents on a geographic basis. In fact, the major possible way to improve efficiency and educational effectiveness was to convert the Deadwood High School to a seventh and eighth grade junior high and the Lead High School from a 7-12 facility to one that only included grades 9-12. This change was recommended by groups in all subject areas that considered building use and curriculum change for grades 6-12 and was in fact implemented. The Deadwood Superintendent and High School Principal left the district, which wound up after consolidation with only one central office administrator.

In other areas less constrained by technical and financial considerations, however, care was apparently taken to maintain equity between the two towns. Deadwood was added to the district's name. A recommendation by a staff committee on extra-curricular affairs to play both varsity football and varsity basketball games in Deadwood was overruled. Football games are now played on the Lead field, while basketball contests take place in the Deadwood Armory. Since there are more basketball than football games, such a decision might be construed to favor Deadwood; however, the teams maintain the Lead name (Golddiggers), while the Deadwood name (Bears) and colors are used by the junior high.

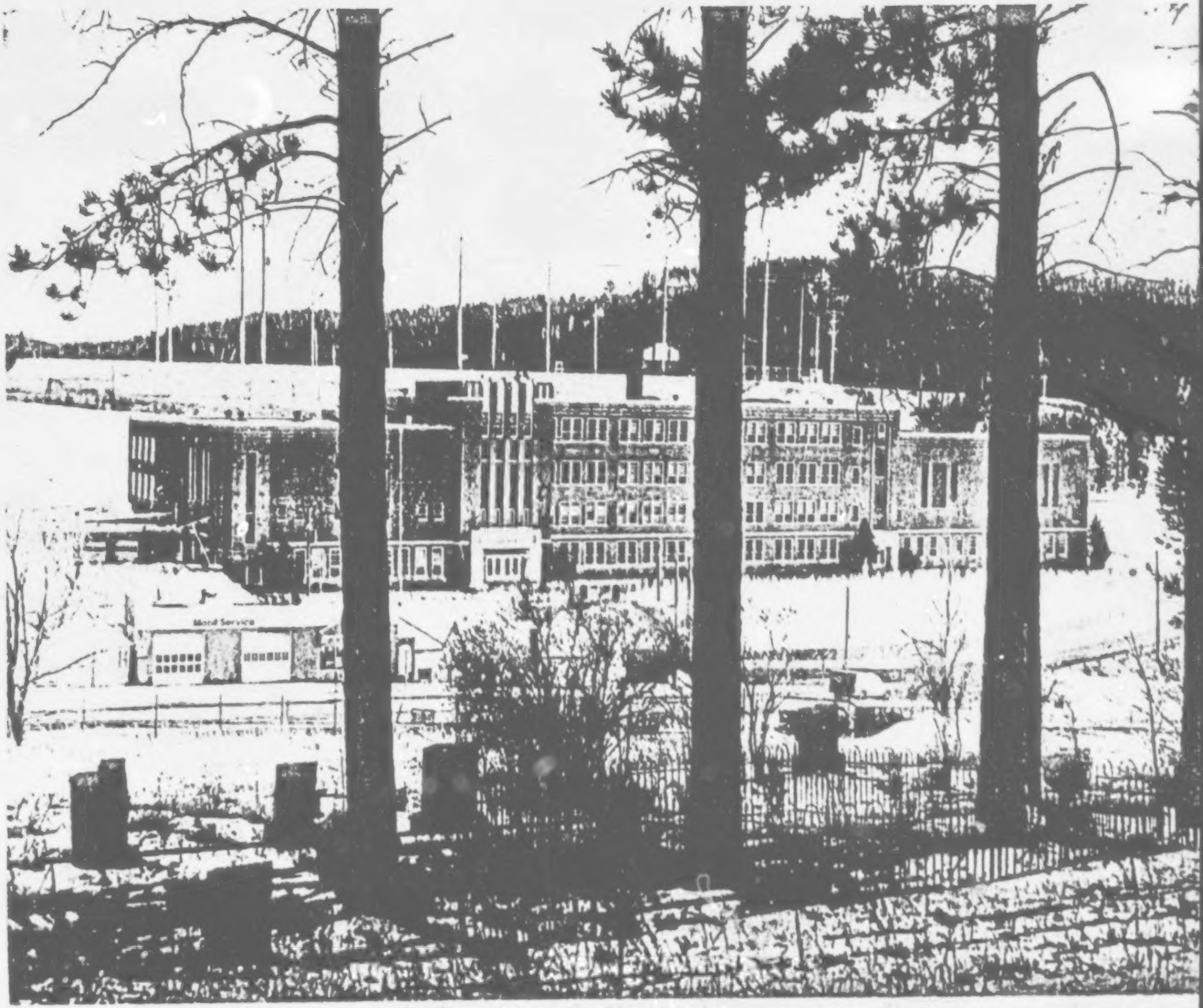

Fig.14. Lead High School.

## THE LEAD-DEADWOOD AREA TODAY

### Demography and Stratification[12]

In 1970, Lawrence County had a total population of 17,453. It was still divided into three high school districts and four elementary districts. The population of the Lead district was 6,301 and that of Deadwood was 3,557, but these figures underestimate the population of the current district slightly because they do not include the population of the Pluma, Terraville, and Nemo districts. Still, data collected for the two districts, as well as for the county, give some indication of the present nature of the district as well as some of the differences between the two towns.

One important characteristic of the Lead-Deadwood district is that its population is concentrated in the two towns. The combined population of the two 1970 school districts is 9,858, while that for the towns is 7,649. Only 22% of the population is found outside of the towns. Even if the population for the three elementary school districts is added, it seems unlikely that the non-town population would rise above a quarter of the total. Furthermore, while figures are not available on this point, a large portion of the non-town population seems to be located relatively close to Lead and Deadwood, primarily between them along U.S. highways 85 and 14A. Thus, while the population of this district may be fairly high for a Small Schools Project district, large parts of it are quite sparsely inhabited.

The population of the Lead-Deadwood area has been declining for about 30 years. Because the area depends on gold production, the 1930s was actually a period of prosperity and growth. Census figures indicate that the population of the two towns peaked in 1940. The war years saw a sharp decline because the mines were closed, and while most people returned to the area afterwards, the 1950 population was noticeably lower than that of the pre-war years. The decline has continued into the present, as Table 10 indicates.

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[12] Data for this section come from M. Riley & E. Butler, South Dakota Population, Housing and Farm Census Facts.

Table 10

POPULATION OF LEAD AND DEADWOOD: 1930-70

| Year | Lead | Deadwood |
|---|---|---|
| 1930 | 5,733 | 2,559 |
| 1940 | 7,520 | 4,100 |
| 1950 | 6,422 | 3,288 |
| 1960 | 6,211 | 3,045 |
| 1970 | 5,240 | 2,409 |

This declining population can be attributed primarily to outmigration. Although the county fertility ratio had declined 41.8% in the 1960s, it was still 377.4--enough to increase the population. In fact the county as a whole did grow by 2% in the 1960s, but it still had a net emigration of 1,740 people. It is difficult to predict the direction of population change for the 1970s, but if the price of gold remains high, the number of people is liable to stabilize. Should gold go high enough for other mines to open or if the tourism business improves, the population may even grow some.

As shown in Table 11, the population of the Lead-Deadwood area approximates the average age distribution for the state, but the population of Lead is noticeably younger than that of Deadwood.

Table 11

AGE DISTRIBUTION

| Age Category | Percentage of Population | | | |
|---|---|---|---|---|
| | State | County | Lead | Deadwood |
| Under 18 | 36.2 | 34.5 | 40 | 31 |
| 18-39 | 51.7[a] | 51.7[a] | 32 | 33 |
| 40-64 | | | 19 | 23 |
| Over 65 | 12.1 | 10.8 | 9 | 12 |

[a] These percentages are for ages 18-64.

The non-white population of the whole county is quite low (2%) and consists almost entirely of Indians. The school district itself includes a large number of European ethnic groups that are made up primarily of the children of those immigrants who first came to the area to work in the mines. These groups make up about 14% of the district's population. As shown in Table 12, very few first generation immigrants stay in the area. An idea of what groups are represented is also given in the Table. Because there do not seem to be any important differences between Lead and Deadwood in this respect, figures have been combined.

Table 12

ETHNIC GROUPS

| | Native Born | Foreign Born |
|---|---|---|
| German (Including Austrian) | 254 | 20 |
| British | 234 | 48 |
| Finnish | 216 | 19 |
| Other Scandinavian | 371 | 20 |
| Russian | 141 | 18 |
| Italian | 88 | 0 |
| Chinese | 0 | 0 |

The large Chinese population that used to exist in Deadwood has completely disappeared.

While county figures might suggest that the population of the Lead-Deadwood school district is unusually highly educated for the state, that is not in fact the case. Of all county residents, 63.8% have graduated from college while the figure for the state is only 53.3%. The county figure seems to be a reflection of the large number of highly educated people associated with Black Hills State College in Spearfish, however, because the figures for the Lead and Deadwood areas are 55% and 53% respectively.

A look at the distribution of occupations in the school district shows that there is very little agriculture in the area. As indicated in Table 13, there is a large working class population in Lead, while the various occupations are more evenly distributed in Deadwood.

Table 13

OCCUPATIONAL DISTRIBUTION

| Occupation | Lead | Deadwood |
|---|---|---|
| Professional and Technical | 12% | 14% |
| Managerial and Sales | 8% | 20% |
| Clerical | 6% | 5% |
| Craftsmen | 21% | 21% |
| Operatives | 39% | 27% |
| Farm | 0% | 1% |
| Service | 14% | 13% |

Because of the larger number of salespeople in Deadwood and of workers in Lead, one might expect there to be more people in the upper income brackets in Deadwood. As shown in Table 14 this is in fact the case, but neither area has as many well-to-do families as the state does as a whole. There is more poverty in Deadwood than in Lead.

Table 14

INCOME DISTRIBUTION

| Family Income | Percentage of Families | | | |
|---|---|---|---|---|
| | State | County | Lead | Deadwood |
| $10,000 or over | 31.8 | 30.6 | 19 | 24 |
| $5000 to 9999 | | | 49 | 46 |
| Under $5000 | | | 32 | 30 |
| Below Poverty Level | 14.8 | 9.7 | 7 | 13 |

## Economy and Employment

By far, the major source of income for the Lead-Deadwood school district is gold mining, but to get a complete picture of the economy of the area, it is necessary to consider other activities, including retail trade, tourism, and logging. The importance of various employment categories for the towns of Lead and Deadwood in the recent past is indicated in Table 15. The predominance of mining in Lead in particular, but more generally in the whole area is shown in this table. In 1960, 39.1% of the work force in the two towns was employed in mining.

Table 15

EMPLOYMENT IN LEAD AND DEADWOOD

| Occupation | Lead | | Deadwood | |
|---|---|---|---|---|
| | 1960 | 1970[a] | 1960 | 1968[a] |
| Agriculture and Forestry | 21 | 30 | 15 | 16 |
| Mining | 1,210 | 1,538 | 141 | 241 |
| Construction | 49 | 40 | 66 | 72 |
| Manufacturing | 78 | 50 | 91 | 90 |
| Transportation, Communications and Utilities | 73 | 40 | 82 | 77 |
| Finance, Ins. and Real Estate | 70 | 45 | 35 | 38 |
| Misc. Services | 105 | 100 | 148 | 135 |
| Professional Services | 216 | 160 | 235 | 247 |
| Public Administration | 51 | 43 | 71 | 69 |
| Other | 45 | 45 | 42 | 42 |

[a] 1968 and 1970 figures are based on estimates made before 1970 census figures were available and, judging by other figures in the same book, they may be high.

Source: Brady Engineering Co., 1970; and Brady Engineering Co., 1969.

Since the Bald Mountain Mine, a small operation near Trojan, closed in 1959, the Homestake has been the only gold extracting organization in the Black Hills. Production for 1972 was about 1.5 million tons of ore, from which 407,397 ounces of gold and 99,319 ounces of silver were recovered. These figures are down somewhat from 1971, when 1.8 million tons of ore were mined, and 513,494 ounces of gold and 106,182 ounces of silver were recovered. Production in 1972 was reduced by a six-week strike. The meaning of these figures depends largely on the price of gold. The average price per ounce rose from $40.99 in 1971 to $56.73 in 1972, and has continued to climb. As a result, the profitability of the mine and the general economy of the school district have been greatly improved (Homestake Mining Co., 1972 Annual Report).

The rising price of gold has had a number of effects on the mine and its work force. As the mine has gone farther into the earth (exploration is now going on at the 7,200 foot level), the costs of production have increased. Had gold remained at $35/oz., the mine would probably have been forced to close in a few years. The rising price has not only allowed the mine to continue operations, but also allows it to mine a lower grade ore, further increasing its longevity. In the past years the mine has gone from mining ore averaging one-third of an ounce per ton to a little more than one-quarter of an ounce per ton.

The rising price of gold has also increased the company's profits. Between 1968 and 1971, Homestake stock paid between 61¢ and 48¢ per share annually. In 1972, earnings jumped to $1.28 per share, and they have continued to climb. The union contract negotiated in 1972 had certain benefits keyed to the price of gold. The most important of these were that the six-day work week was to be reduced to five when gold went over $80/oz. At slightly higher prices, pensions and salaries were to be raised.

Since George Hearst left the Black Hills in 1889, the Homestake Mine has had absentee owners, with its main offices in San Francisco. The concern of top management with local conditions probably decreased after 1950, when the company began to diversify. In 1972, the company had investments in uranium mines, silver mines in Colorado, an iron mine in Australia, a copper mine in Peru, and lead-zinc mines in Missouri. The latter were providing more profits than the Lead gold operation.

In 1972, Homestake workers unionized by the United Steel Workers went on strike. The result was apparently a slight increase in the number of workers who are union members. Currently, about 1,070 Homestake employees belong to the union, which also has a little over

100 members in other organizations in the area, including the city workers and the school system maintenance and janitorial staff. The strength of the union is apparently not as great as its numbers might indicate, however. Typical steelworker practice is to send in a professional organizer only for the short period of time while the election on organizing is held and the local is established. The Lead local still has a professional organizer eight years after it was started. This fact and comments made by townspeople suggest that the miners' loyalties remain divided between the union and the company.

While Deadwood's work force includes over 200 Homestake workers, its dependence on mining is indirect because it serves as the miners' shopping center. This relationship can be seen by comparing retail trade figures for Lead and Deadwood. In 1970, $2 million were spent on goods and services in Lead. Two years earlier, $10.5 million were spent in Deadwood. A measure of a city's retail strength used by planners is the retail trade ratio. In 1963, Deadwood's was 247, while four years later Lead's was 32. This means that at those times Lead merchants served 32 people outside the town for every 100 in it, while Deadwood served 247 for every 100. Another way of viewing these figures is that Lead was meeting the complete retail needs of only 1,930 people, while Deadwood was meeting those of 7,789. Although both towns draw upon a trade area that extends from Sturgis (15 miles to the east) well into Wyoming, these figures suggest that Lead is at best a minor retail center and that most of its residents do a large part of their shopping in Deadwood (Brady Engineering Co., 1970; Brady Engineering Co., 1969).

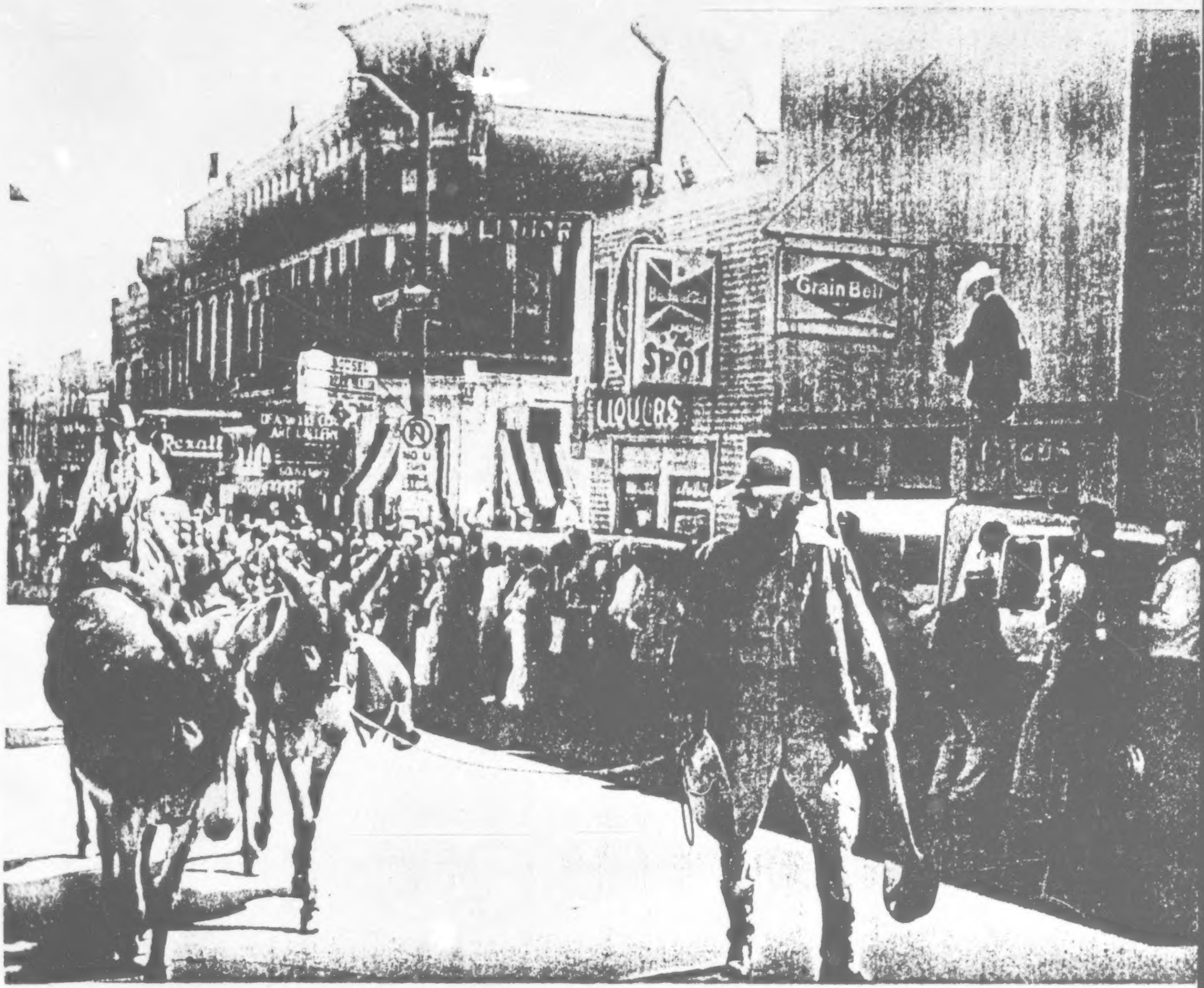
Tourism has an important effect on trade in the area, though not as great as mining, but it is difficult to get the figures necessary to assess its importance. According to the Deadwood city plan,

> Tourism is a dominant factor in the regional economy... The figures for recreational employment are small--294 employees--but many tourist-oriented establishments are classified as retail and other various services.

This plan goes on to state that eating and drinking places form one of the town's strongest retail sales categories. The tourist business depends on two local natural resources: the area's colorful gold rush history and its abundant opportunities for outdoor recreation, including camping, hiking, fishing, and hunting. Every summer the town puts on its fair-rodeo, the Days of '76, a three-day weekend of entertainment including a parade, a rodeo, and live country and western music that recreates the gold rush period. The Chamber of Commerce operates the Broken Boot Gold Mine, where visitors are taken on a short tour undergound; the Chamber of Commerce is also involved with a plan to refurbish the fronts of Main Street and Lee Street buildings and bring them back to the condition they were in the 1890s. However, tourism, especially in this region that is isolated from major urban centers, is dependent on the national energy situation, and severe gasoline shortages may severely harm summer business.

Although nearby Sturgis and Spearfish have developed downtowns, the merchants of Deadwood and Lead feel that their main competition comes from Rapid City, which is about 45 miles away. This city is the major trade center for western South Dakota and, with its larger population of 43,836, can provide goods and services not available in a smaller town. The largest source of competition seems to be the big discount stores that can lower prices well below those found in Lead and Deadwood.

There are very few wholesaling or manufacturing concerns in Lead and Deadwood. Growth in these areas is practically prohibited by a number of problems, including: (1) transportation problems caused by the distance from large markets; (2) the difficult


LIQUOR
SPOT
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Grain Belt
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Fig.15. Days of '76 parade in Deadwood.

terrain, which forced the nearby Interstate Highway to bypass the Deadwood-Lead area; (3) a scarcity of water; and (4) shortage of level land. With over half the county belonging to the Black Hills National Forest, however, and most of that in the southern part, it is not surprising that there is a good deal of logging. There are about 170 woodsworkers (i.e., men who drive trucks or skidders, or work saws) in the county. A small lumber mill in Deadwood closed in the last five years, so most of the wood cut in this area is transported for processing to the Homestake mill in Spearfish or one of two other mills in Whitewood. Pulp wood is sent to Wisconsin for processing.

Unemployment in the area is very low. The 1970 census showed only 98 people out of work.

## Local Government and Politics

As in the past, the two outstanding characteristics of the political organization of the school district remain in the strength of the Republican Party and in the activity of the Homestake Mine which affect the governmental units in the area; these are the Lawrence County Commission and the city governments of Lead and Deadwood. The county has five commissioners who serve two-year terms. Two are elected in odd years and three in even years. Deadwood has a city council consisting of eight members--two from each of the city's four wards. The mayor is elected by the whole town. All terms are for two years, and half the council is elected each year. In contrast, Lead has a commission made up of a mayor and two commissioners, all elected at large for five-year terms.[13]

Because it has a power of the purse over all other local governmental units through its power to collect taxes and set mill levies (within broad limits set by the state), the county has the greatest responsibility and broadest authority of all local governing bodies. The existence of federal revenue sharing money only extends this power, because applications for such funds are made to the county, which is the local distributor for them. The county also has superior authority in the areas of courts and law enforcement. The city magistrates handle more cases than do the county judges, but the county courts are the only ones with jurisdiction over civil and juvenile cases and over crimes that are felonies. Furthermore, the county has the only full scale jail in the school district. While the Lead Police Department has the capacity to hold a small number of individuals overnight, anyone who must be incarcerated for a longer period of time is put in the county jail. On the other hand, the towns provide certain services exclusively. In 1971, the City of Lead took over the operation of the Homestake Recreation Center and Library from the mine. This center includes a swimming pool and a small bowling alley. The City of Deadwood has run a separate library and a recreation center for many years.

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[13] Non-statistical information in this section is based on interviews conducted by William A. Firestone.

The continuing strength of the local Republican Party is all the more surprising in the light of the decline of that same organization at the state level. Since George McGovern became active in the state Democratic Party, it has consistently grown and threatened the state Republican power structure. By 1972, both U.S. senators and the state's governor were Democrats. In spite of this shift, the Lead-Deadwood school district remains predominantly Republican. Table 16, which presents information on voter registration, clearly indicates the local Republican ascendancy; 61.9% of the voters are registered Republican.

## Table 16

## VOTER REGISTRATION IN THE LEAD-DEADWOOD SCHOOL DISTRICT (1972)[14]

| | Republican | Democrat | Independent | General | Total |
|---|---|---|---|---|---|
| Lead | 2,035 | 978 | 60 | 138 | 3,211 |
| Deadwood | 1,075 | 472 | 24 | 85 | 1,656 |
| Rural | 603 | 447 | 27 | 56 | 1,133 |
| Total | 3,137 | 1,897 | 111 | 279 | 6,000 |

The Republican Party's strength is also shown by the 1972 election results. The only break in the pattern came in the contest for U.S. senator and was a product of two factors besides Abourezsk's ability as an organizer. First, the Republican candidate was from the eastern part of the state and may have suffered locally because of the rivalry between the two regions. More importantly, he was generally a weak candidate, and it has been suggested that his candidacy was a result of the current decline of the state Republican organization.

## Table 17

## RESULTS OF SELECTED 1972 ELECTIONS IN THE LEAD-DEADWOOD DISTRICT

| | Presidential | | U.S. Senate | | State Senate | |
|---|---|---|---|---|---|---|
| | McGovern (D) | Nixon(R) | Abourezk(D) | Hirsch(R) | Collins(D) | Dunn(R) |
| Deadwood | 352 | 798 | 535 | 580 | 346 | 784 |
| Lead | 872 | 1,511 | 1,225 | 1,139 | 771 | 1,530 |
| Rural | 317 | 455 | 465 | 310 | 334 | 423 |
| Total | 1,541 | 2,764 | 2,225 | 2,029 | 1,451 | 2,737 |

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[14] Statistics for Tables 16 and 17 were taken from ledgers in the Lawrence County auditor's office.

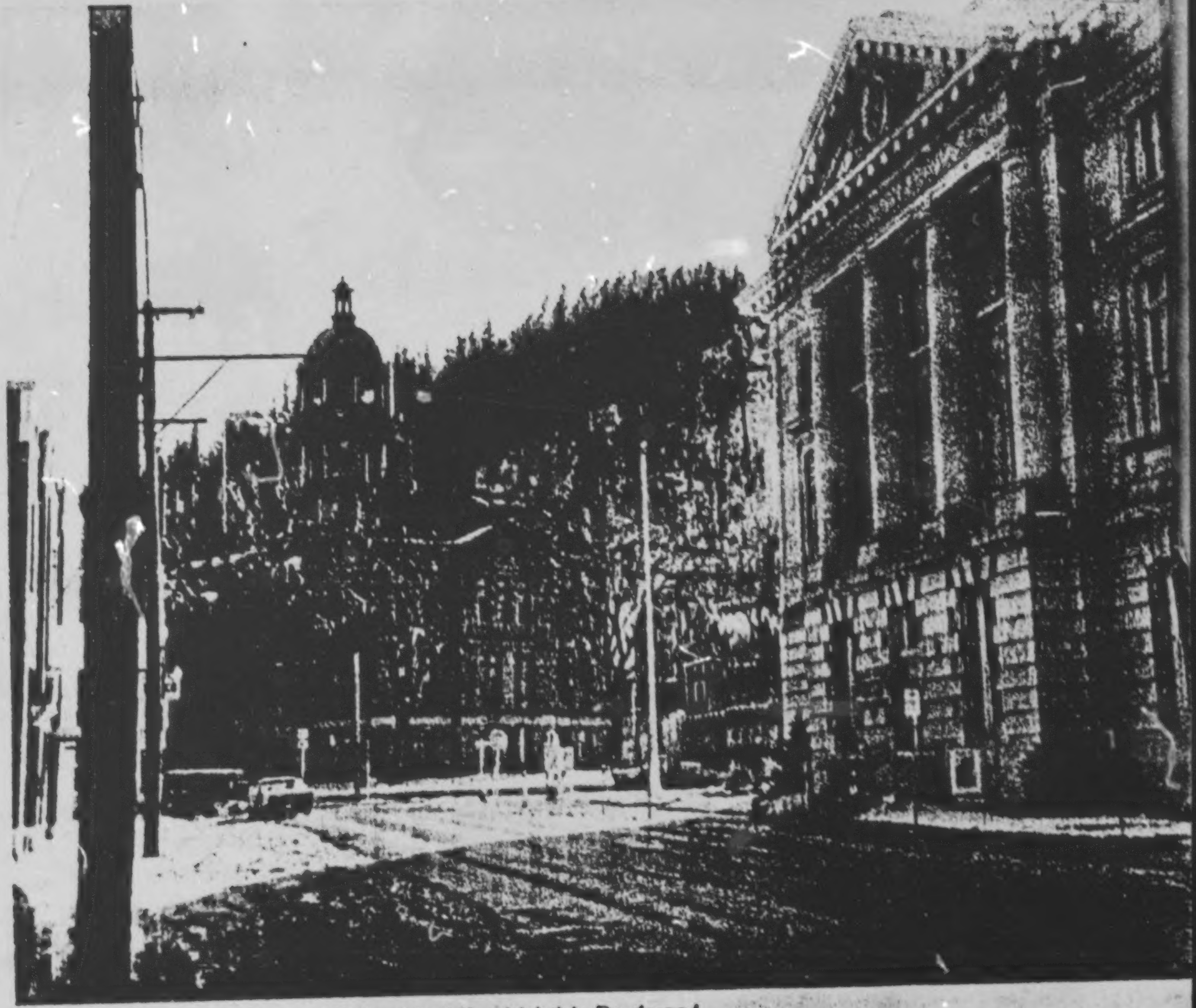

Fig.16. Courthouse (center) and Federal Building (right) in Deadwood.

To complete the picture of local Republican predominance, it should be pointed out that the district's state senator, state representatives, and five county commissioners, as well as practically all the minor elected county officials, are Republicans.

The role played by the Homestake is more difficult to document and assess. One indication of its political importance is the number of its officials who hold elective office. The district's state senator is a member of the company's Public Relations Department, and his superior is registered as a lobbyist in Pierre. Two of the three members of the Lead City Commission are department heads at the mine. In the ten years before the Lead and Deadwood school districts were combined, half the school board members were Homestake white collar workers. Since reorganization, there has never been less than one Homestake employee on the board. The company has no members on the Deadwood Council, and that town is generally considered much freer of Homestake influence than is Lead. There are no employees on the County Commission either, but a number of informants have suggested that the company has a great deal of informal influence with that body.

It can be argued, however, that Homestake's political influence is both more pervasive and less nefarious than the above list would suggest. It is more pervasive because there is a tendency to anticipate the wishes of the mine and take them into account when decisions are made. It is less nefarious because most people both recognize and accept Homestake leadership. Opposition to the mine and bitterness about the role it plays do exist, but they are relatively weak, and even the coming of the union has not been adequate to mobilize these feelings as a political force. Perhaps the most important reason for positive sentiment toward the mine is that it continues its policy of providing public services wherever possible. Two public projects are now being planned for which the company has indicated that it will probably provide either financial or other kinds of support; these are an environmental education program in the school system and the activities to celebrate the national bicentennial in 1976.

The political climate of the district has promoted a low taxes-low services approach to government in the school district. Because of its important position, the County Commission can be taken as a critical example. In fact, services provided by the county have increased. Wallace Furze, who has been a county commissioner since 1954, says that from the time he first became a member of the commission until 1972, the annual county budget has gone from $485,000 to about $1 million. While inflation has played a part in this increase, he attributes the major role to increased services and says inflation has been less important. At the same time, the highway budget has gone from $132,000 to $342,000, while the cost of running the county courts has gone from $12,000 to $61,000 (Lead Daily Call-Deadwood Pioneer Times, January 10, 1973).

Although the County Commission has been increasing its services over time, it seems primarily oriented towards fiscal conservatism. The problems local schools have had in getting money since 1967 have been discussed in the previous chapter and will be elaborated later. In addition, in a recent discussion of county-wide reassessment of property at a commission meeting, several commissioners were primarily concerned with using rising assessments as a way to lower mill levies rather than using possible new income to allow various local governmental units to increase services.

## Community Services[15]

The Lead-Deadwood area is quite self-sufficient as far as basic services, community facilities, and general necessities for living are concerned. Health, education, and welfare services are all available, although whether or not they are adequate seems to be a matter of discussion among some residents. Health facilities and

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[15] Information for this section comes from Abt Associates Inc., Social Economic Accounts Systems, 1974.

and services in this school district include two hospitals, ten doctors, two nursing homes, three dentists, [illegible] pharmacies and a Public Health Nurse. In the Great Plains, where one often has to travel 100 miles to a doctor, it may seem surprising that medical facilities are so developed for an area population of about 10,000. One of the hospitals, however, is operated by the Homestake Mining Co. for its employees (current and retired) and their dependents, and seven of the doctors are employed there. Like many industrial health programs, the Homestake Hospital offers preventive medicine as well as emergency and general medical care free of charge for those people covered. This includes around 70-80% of the school district's residents. The other hospital, St. Joseph's, is run by an order of Catholic nuns; the three private doctors plus two from Sturgis, which is 15 miles away, practice there. In addition, some people go to Spearfish (15 miles away) or Rapid City ([illegible] miles) for regular medical care. For special problems, Rapid City, Denver, and the Mayo Clinic in Rochester, Minnesota are the medical centers most frequently used. Facilities for mental health are less readily available, but personnel from the West River Mental Health Clinic in Rapid City come to St. Joseph's Hospital twice a month and are trying to expand services to this area. For people with alcoholic problems, the AA, Alanon, and the Glory House (a halfway house for alcoholics) are all located in Lead.

Post-secondary educational opportunities are provided to school district residents by conventional facilities and other sources. Black Hills State College in Spearfish is primarily a teacher training school but also has a liberal arts course. The National College of Business and the South Dakota School of Mines and Technology are both located in Rapid City. In the Lead-Deadwood area, the public school system offers adult education courses, some to help people obtain a GED. Occasionally, a private group like the Company of Fine Arts or a government agency like the State's Attorney's office will give classes in topics ranging from pottery to consumer law.

Another important service is welfare. The public welfare program is run by the state, and in Lawrence County as in all other counties in South Dakota, the program is divided into two parts--one office concerned with interviewing and counseling clients and the other with the distribution of welfare monies. Both offices are located in Deadwood. The only major private welfare program is that of the Homestake Mining Co. The company provides not only free medical care but also disability coverage and retirement benefits for all employees. Another private program is the Attention Center in Spearfish which gives care to area runaway girls and boys. It is funded in part by local private organizations and apparently has served an important function in the past few years.

In addition to basic social services, the usual utilities are available. Natural gas is supplied to both Lead and Deadwood by the Montana-Dakota Utilities Co.; however, residents in the outlying areas of the district must obtain propane from private companies. Electricity is supplied by the Black Hills Power and Light Co., and telephone service by Northwestern Bell. Homestake generates about two-thirds of the electricity it uses and runs its own telephone system to connect Homestake buildings. (This is a holdover from the time when several telephone companies served the area.) The cities of Lead and Deadwood collect garbage for all residents within their boundaries, while rural families take their garbage to dumps on Forest Service land. Homestake controls the water rights to the Spearfish Creek drainage system; the company pumps the water over Aztec Hill to Lead and then down to Deadwood, selling it to residents in both towns for a nominal monthly fee. Although Lead gets all of its water from the mine, Deadwood gets about one-fourth of its water from springs and other sources. The two towns and the mine all have sewer systems which dump into Whitewood Creek, although Lead does have two tanks to give primary treatment to some of the city's sewage. People in outlying areas get water from springs and wells and channel their sewage either into septic tanks or directly into nearby creeks.

The disposal of sewage has been a source of controversy. As early as 1957, Homestake started looking for a different way to dispose of mine tailings (the wastes left after refining the gold from the ore) rather than dumping them directly into Whitewood Creek. However, no concrete action was taken by either the mine or the two towns until the Environmental Protection Agency and the South Dakota State Department of Environmental Protection began to put pressure on them, and local officials realized that raw sewage could no longer be dumped indefinitely into the creek. In April of 1969, the Lead-Deadwood Sanitation District (LDSD) was formed and included the Homestake Mine. By 1971, the LDSD had a plan to build a sewage dam in Centennial Valley (a prairie on the edge of the Hills about 10 miles from Deadwood). The plan was given preliminary approval by the EPA in 1972. However, several factors intervened to delay construction. First of all, a group of ranchers from the Centennial Valley Association worked to stop the LDSD's plan, and second, the U.S. Congress passed a new water quality act which made standards much higher. A third factor has been the discovery that the dam would cost much more than originally estimated. Thus the LDSD has had to completely revise plans for disposal of sewage.

While housing generally costs less than in most other sections of the country, it presents some problems to residents. In many parts of the school district, but particularly in Lead, private individuals cannot get bedrock title to their land because Homestake owns almost all of the mineral rights. These people own their house and either own surface title or rent the surface from Homestake. This situation presents mortgage problems and inhibits new building because the FHA and VA will not guarantee loans unless the house owner has bedrock title. To enable people to own houses, Homestake has developed a mortgage guarantee system of its own. However, the down payment is sometimes as high as 10% and the term is fairly short, usually ten years; these high monthly payments make it difficult for some people to own their own houses rather than rent. Furthermore, the company will generally only guarantee such loans for its own employees and school teachers. In addition, since this is a single industry area and since the housing market is dependent on the economic well-being of that industry (Homestake), the housing market has been somewhat unstable in the past because of the fluctuating price of gold. Therefore, the local bankers tend to discourage people from buying. An additional problem for those who can buy is the lack of houses in good repair. Many people complain that they are unable to find a home and wonder why, since the population is decreasing, there are not more houses available. One reason that has been advanced is that, in the early years, people had expected this area to be like most gold rush towns and fizzle out after the boom was over. Therefore, they did not build houses as well as they might have, and many of the buildings have since deteriorated enough to have been condemned and torn down. Another reason for lack of housing is that there has been very little construction of new residences for many years because of poor market conditions.

Not all people own houses. Many rent from those people who own two or three houses as an investment, and there is at least one large landlord in the two towns. In addition, Homestake maintains two apartment buildings and a few houses to rent to its employees.

While the Deadwood-Lead area is physically separated from the cosmopolitan centers of the U.S., the people are not isolated. Many means of communication and transportation are available. In addition to the telephone system, Western Union Telegraph Co. goes through Rapid City, and there are four post offices in the school district. Seven channel and cable TV stations come from Rapid City,

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Denver, and Casper, Wyoming. The Rapid City Journal and the Denver Post are delivered daily to the two towns, and the local newspaper, the Lead Daily Call-Deadwood Pioneer Times, is published six times per week. (The Call and Pioneer Times were originally separate, but in the 1940s they combined.) There is a library in each town, and the Inter-Library Loan System increases the number of books available to the residents of each town.

Several modes of transportation are available; the most important one is the automobile. Almost every family owns at least one car, since there is no longer any public transportation within the school district. In 1968, Lawrence County had 10,386 registered vehicles for 17,500 people. There is a national bus company with an office in Deadwood which runs buses through Deadwood and Lead daily. Three airlines serve the Rapid City Airport with direct flights to Minneapolis; Pierre, S.D.; Denver; Casper, Wyoming; Salt Lake City; and Minot, N. D. These planes carry some freight as well as passengers. Freight is also carried by several trucking companies based in Rapid City and by the Burlington Northern Railroad which sends a train into Deadwood three times a week.

A variety of religious and cultural organizations are an integral part of life in the school district. There are 14 churches in Lead and Deadwood, one in Terraville, and one in Nemo. Five denominations have churches and ministers in both Deadwood and Lead, even though the population is much smaller now than when the churches were first built in the 1800s. Each congregation has several clubs to which members can belong and further confirm their commitment to the particular church. However, an ecumenical spirit has fostered a number of cooperative religious programs between the churches. For instance, the ministers and priests have formed a club which meets monthly. Although it is mainly a forum for discussion, the club does sponsor a weekly religious program on the local radio station.

There are joint religious services on holidays, and the Protestant churches cooperate in the religious education of their children. The anti-Catholic prejudice that marked the area before World War II has since disappeared.

Besides the church clubs, there are many other organizations, both national and local. The national organizations include Masons, Elks, Moose, Rotary, American Association of University Women, Business and Professional Women, Beta Sigma Phi, Girl and Boy Scouts, and 4-H. Almost every men's club has a women's auxiliary. In the 1800s, the women's clubs had an important function in bringing what culture there was to the area. The Roundtable Club organized the Carnegie Library in Deadwood, and, with the help of Phoebe Hearst's money, the Thursday Club in Lead was responsible for developing the Homestake Library. These women's clubs became part of the Federated Women's Clubs in the early twentieth century, and three of them are still operating. While these groups are no longer the main source of culture, they still perform worthwhile services. One runs the Sweatman Art Gallery which exhibits local artists' works. The women's clubs and most other organizations are open to everyone, but some of them, like Beta and Elks, are more exclusive and are open to membership by invitation only. The local organizations include the Booster Club, an adult group to support local high school sports, and the South Dakota Cowbelles, who promote the use of beef. There are also business clubs like the two Chambers of Commerce and the Retail Merchants' Association.

Although high quality cosmopolitan entertainment and recreation facilities are not readily available to residents, the area has many resources, some of which are not available in a more urban setting. The National Forest provides many opportunities for camping, picnicking, hiking, hunting, fishing, backpacking, and four-wheeling. There are also private resorts and campgrounds, two ski areas, two country clubs for golfing, and tennis courts in Lead, although the latter are not in very good condtion. For indoor sports, bowling leagues thrive in the winter time, and the two recreation centers--one in each town--have swimming pools. Some of the high school activities also are a source of entertainment for adult community members. Football and basketball draw large, enthusiastic crowds. The four or five plays given at the high school generally are well attended, though there is a strong preference for light comedies and the more dramatic performances are not as well received. In addition to high school plays, there are occasional other performances given in the area. The Community Concert Series brings three concerts to Lead each year. The Company of Fine Arts which was recently started in Deadwood is attempting to provide that town with an artists' colony. Although not many residents are inclined to support actively this endeavor, several local artists have been helped by its presence. The Company runs the Hunter Gallery to display and sell art works (some by local people), as well as the Centennial Theatre, which presents three plays each summer; the Company also offers several workshops on pottery, painting, etc.

Other entertainment opportunities include church suppers, indoor (Homestake) and outdoor movie theaters, and several restaurants, some with live bands and one with Chinese cuisine. There are also many bars, each with its own clientele; some cater to miners and others to tourists. And for those men with the inclination, there are still three brothels in Deadwood.

Several summer activities are generally not attended by locals because they consider them "tourist stuff." These include the Trial of Jack McCall (who shot Wild Bill Hickock) and the Days of '76. One Deadwood resident said of the Days of '76 that "Everybody tries to get out of town," because, as she put it, a lot of "hippies" have started coming to the show and have caused trouble for the residents. During the 1971 program there was a mini-riot in downtown Deadwood.

## The School System

### The Program and Attempts to Upgrade It

The Lead-Deadwood school district is currently attempting to provide an advanced, cosmopolitan program that is responsive to changing trends in the national education community; in so doing it faces a number of obstacles in its local environment. Interest in a cosmopolitan program is not new to the Lead-Deadwood area. As early as 1906, both systems were among the first in the state to receive North Central Association accreditation.

A look at the composition of the staff shows that the pupil-teacher ratio in the system is a very low 17.1:1 and would be even lower if the aides were counted. The staff is well educated. About 30% of the teachers have master's degrees or the equivalent, and many of the aides have teacher's certificates. On the other hand, one of the few areas where economizing was possible during reorganization was in administrative overhead; the system has a very small central office staff (Table 18).

Table 18

SCHOOL DISTRICT PERSONNEL: 1971-72

| | |
|---|---|
| Superintendent | 1 |
| Business Manager | 1 |
| Principals | 6 |
| Teachers | |
| Counselors | 4 |
| High School | 38 |
| Elementary and Junior High | 95 |
| Total | 137 |
| Non-Certified Personnel (FTE) | |
| Aids | 23 |
| Secretaries | 9 |
| Custodians | 28.5 |
| Bus Drivers | 8.5 |
| Lunchroom Employees | 14 |
| Total | 83 |

Source: State Aid Application: Lead-Deadwood School District, 1970-71.

Perhaps the best way to see the system's attempts to provide a cosmopolitan education is to examine the curriculum and some of the recent special programs that have gone on within it. What constitutes the latest word in quality education changes over time. In the late 1950s, as the progressive education movement ran its course and the launching of Sputnik had its effect, schools began paying more attention to content learning, achievement, and educating exceptional children. More recently, the emphasis has been on either equal education for minority groups or individual freedom through such innovations as schools without walls, open classrooms, and other attempts to tailor educational programs to individual needs.

Generally, the approach taken in the Lead-Deadwood system to strengthen the curriculum at the elementary level has been to move away from the self-contained classroom towards various forms of subject matter specialization. The clearest example of this is the "departmentalizing" of the fifth and sixth grades at the Central Elementary School--the largest elementary school in the system--where students rotate from teacher to teacher, each of whom specialize in a different area, as has been discussed in the section on school consolidation. The departmentalized system at Central is not the only form of specialization found in the elementary grades. The system relies highly on specialists in art and music instruction and physical education to carry out its program. By 1971-72, the equivalent of eight full-time instructors had been assigned in those three areas in the elementary schools throughout the system. In addition, the Lead-Deadwood district shares a speech specialist with two neighboring districts, and the elementary schools have a counseling program. Finally, both the Central Campus in Lead and the Deadwood Elementary School have school libraries. The difference in size between libraries seems to represent the fiscal situation of the two districts before reorganization. Lead's library has about 12,000 books and a full-time librarian, while the one in Deadwood has about 3,000 books and a part-time librarian.

In contrast to the elementary schools, the direction of development in the high school has been towards a less restrictive setting which maximizes the options open to individual students. Before reorganization, the Deadwood High School had an open campus, which meant that students were not required to be in the school or on the grounds when they were not in class, but Lead did not. About the time of reorganization, the rules at the Lead High School were changed to allow students to leave the grounds when they were not in class. In addition, study halls were abolished, except for freshmen, and a lounge was created for students. Now, when sophomores, juniors, and seniors are in school but not in class, they are expected to be in the student lounge or on the floor with the library and resource center. This lounge was a direct outgrowth of student pressure for change.

Another development that has increased student choice is the replacement of year-long courses in English and social studies with quarter courses. This move has allowed both departments to significantly broaden their coverage and give students exposure to a greater variety of subject areas and has helped instructors keep up with the latest trends in their fields. Some of the courses offered by the English department include fantasy, poetry, creative writing, frontier literature (which focuses on the Black Hills), science fiction, college preparatory English, practical composition for students who do not plan to attend college, short stories, and world literature. The social studies department offers courses in psychology, sociology, anthropology, economics and consumer education, marriage and the family (which includes a section on birth control), American history, western civilization, the American Indian, and the American Negro, as well as area studies on Africa, Asia, and Latin America. Many of these course offerings themselves represent attempts to keep up with current thinking on what should be taught in high school.

The various staff and school evaluations carried out by the Lead system during the late sixties and early seventies, discussed in the previous chapter, are also indications of an attempt to maintain a modern, cosmopolitan program, as is the thorough analysis of the system's programs undertaken during planning for reorganization. At that time, the faculty was divided into 22 separate groups by subject area in the upper grades and by grade level in the primary grades. Although these groups spent a good deal of time resolving questions that stemmed directly from the fusion of the two districts, such as building use, they also discussed what should be taught and how. The recommendations that came out of these deliberations are extremely diverse, and most have to do with the concerns of particular areas. These included recommendations to:

1. Offer home economics courses in the seventh grade and to high school boys;
2. Offer a high school course on home repairs;
3. Integrate special education children into regular classrooms wherever possible;
4. Develop a unit on drugs for the elementary grades;
5. Shorten the length of the junior high school day.

A number of groups were concerned about the same subjects. For instance, nine wanted to eliminate letter grades, but two opposed the idea. Eight groups specifically recommended the use of aides, and five were interested in some form of team teaching. In addition, nine groups recommended developing a vocational education program; one group was set up specifically to study the question. The most widely examined idea was "individualizing education," a topic that was discussed by 12 of the 22 groups. This topic was important because it represented an early sounding of the major theme of the district's proposal to NIE/ES ("5 Year Plan: Lead-Deadwood School District; 1970-71").

The attempt to upgrade continually the system's educational program and keep in touch with national trends has had both positive and negative side effects. For instance, the series of special programs that preceded the Experimental Schools project seems to have taken its toll in terms of lowered teacher morale and heightened cynicism. Some of the staff who failed to see any continuity between the various attempts at improvement or any follow-up on various evaluations became weary of new programs. As one principal has put it, "it's getting tough to get the troops up for new projects." This attitude was shown by one teacher who, when asked about individualized education said, "Every couple of years there is a new jargon, a word for the year. Every year something new comes up." Other teachers are less philosophical and show more extreme resistance to current projects. One principal pointed out that his school has been involved in some kind of special effort in three of the five years ending in June of 1972. Although some of this time went into reorganization, that in itself could be considered an attempt to increase the cosmopolitan, up-to-date character of the systems involved, even if no curriculum review had accompanied it.

Resistance to these programs does not mean that the system's teachers are especially conservative or opposed to innovation. In fact, a number of teachers have themselves proposed changes in the school curriculum; however, teacher-initiated changes tend to be concerned only with specific course offerings or organization within a particular department. Resistance seems to be limited to the broad changes in theory and programs that are initiated by the administration.

The school system's cosmopolitan orientation helped to keep the district aware of the possiblity of using federal funds for some of its programs. Thus, when the district first applied for Experimental Schools funds, it already had some useful experience in dealing with the federal government. For instance, before reorganization in 1969-70, Deadwood received $989 in ESEA money from Titles II and VI, while Lead was receiving, from Title I, $15,000 to run its preschool program and $20,00 for the summer school program. In 1971-72, the district received almost $45,000 in ESEA Title I money to fund a preschool program and $1,700 from ESEA Title II to improve its library facilities.

In trying to maintain a cosmopolitan, progressive program the school system has faced problems from two groups--the student body and the community. One problem with the students stems from declining enrollments, which are a result of the general population decline and falling birth rate. Enrollment actually peaked in about 1966 and has been going down since, as is shown in Table 19.

Table 19

ENROLLMENT DECLINE: FALL, 1966-FALL, 1971

| Year | Lead | Deadwood | Combined |
|---|---|---|---|
| 1966 | 1,991 | 1,037 | 3,028 |
| 1968 | 1,965 | 924 | 2,889 |
| 1970 | 1,867 | 915 | 2,782 |
| 1971 | | | 2,572 |

While a declining enrollment might allow the system to cut staff and thereby introduce economies to facilitate curriculum changes, its difficult financial situation means that all the economies that have been made so far have gone towards maintaining the basic program. Program changes are made by addition more often than they are by deletion or reorganization, and even when reorganization is involved a certain amount of additional resources is needed for the transition. It would seem that it is easier to get additional resources allocated to a system during periods of growth than in times of decline.

There is also some question about how well the current high school curriculum, which is oriented primarily towards preparation for college, fits with the needs and aspirations of the heavily blue collar community that it serves. System-wide achievement scores for all grades tend to fall right around the fiftieth percentile. These scores are consistent with the career choices that the district's high school students have made in the past. Although 45.1% of the class of 1968 in Lead started college, only 29.3% graduated; it has been suggested that the number of college entrants from this area in the late 1960s was inflated somewhat by the war in Vietnam. As indicated in Table 20, which is based on information gathered by counselors in the fall after graduation, most students from the Lead-Deadwood system do not go on to college, and this trend seems likely to continue.

Table 20

POST-HIGH SCHOOL ACTIVITIES OF GRADUATING CLASS OF 1972

| Activity | Percentage of Class |
|---|---|
| Employed | 21.9 |
| Attending Four Year College | 39.0 |
| Attending Trade or Vocational School | 10.2 |
| Armed Services | 8.0 |
| Married | 12.8 |
| Unemployed | 1.6 |
| No Information | 6.4 |
| | (N = 187) |

While strong arguments can be made for giving all high school students a general academic education, it is not surprising that there is some question concerning the adequacy of the district's vocational program, both within the system and in the community. Less than 10% of the student body is enrolled in vocational programs including machine shop, office occupations, and a work-study program, although a larger number take non-vocational shop, home economics, and business courses.

The other problem faced by the Lead-Deadwood school district is lack of community support. Iannaconne and Lutz (1970) suggest that two indications of this condition are high voter turnout at school elections and incumbent defeat, since school board members who run for re-election are only defeated as a result of major social changes in a school district, such as extreme demographic shifts or the consolidation of several systems. Data for school board elections in the Lead-Deadwood area (Table 21) are characterized before reorganization by low voter participation and a number of years when no elections were held; before reorganization, schools were not an area of conflict. Even Deadwood's financial problems in the late sixties and the reorganization issue do not seem to have significantly increased voter turnout there. Increased voter turnout after reorganization suggests that the schools then became more of a public issue. The 1971 election can be explained completely in terms of sectionalism. Schmidt was from Lead and Derosier had been a Deadwood board member. Because Berry had been a long-time Deadwood board member, the Lead board had appointed him to fill a vacant position during the year of planning for reorganization, so he was in fact a Lead representative in the election. Stratton ran as a Deadwood incumbent because he had been appointed to fill an empty seat since the 1970 election. Each town voted for its own representative, and the Lead people carried because there were more voters in the larger town. The 1972 election, however, which represents the only case where an incumbent lost, cannot be explained in terms of inter-town rivalry because three candidates were Lead residents. Percevich, the winner, was an ex-teacher, and an unusually energetic campaign was mounted for him by the local education association.

## Table 21

## SCHOOL BOARD ELECTIONS IN LEAD AND DEADWOOD: 1963-72

| Year | Lead | | Deadwood | | Pluma and Nemo | Combined |
|---|---|---|---|---|---|---|
| 1963 | No election | | No election | | | |
| 1964 | Daniels | 240 | Waldron | 367 | | |
| | Emery | 103 | Campbell | 122 | | |
| | Total | 343[a] | Total | 489 | | |
| 1965 | No election | | Election: no results recorded | | | |
| 1966 | No election | | No election | | | |
| 1967 | No election | | No election | | | |
| 1968 | Slaughter[b] | 362 | No election | | | |
| | Watt | 328 | | | | |
| | Total | 690 | | | | |
| 1969 | Payne[b] | 372 | No Election | | | |
| | Tysdal | 116 | | | | |
| | Total | 488 | | | | |
| 1970 | McColley[b] | 327 | Swanson | 102 | | |
| | Bayley | 285 | Stratton | 94 | | |
| | Total | 612 | Total | 196 | | |
| | | | Reorganization | | | |
| 1971 | Schmidt[b] | 742 | | 162 | | 904 |
| | Derosier | 63 | | 280 | | 343 |
| | Total | 805 | | 442 | | 1,247 |
| | Berry[b] | 515 | | 142 | | 657 |
| | Stratton | 257 | | 300 | | 557 |
| | Total | 772 | | 442 | | 1,215 |
| 1972 | Percevich | 434 | | 181 | 38 | 653 |
| | Magers[b] | 344 | | 102 | 9 | 455 |
| | Bayley | 233 | | 62 | 8 | 303 |
| | Total | 1,011 | | 345 | 55 | 1,411 |
| | Ruth[b] | 537 | | 269 | 45 | 851 |
| | Hoggat | 465 | | 81 | 9 | 555 |
| | Total | 1,012 | | 350 | 54 | 1,406 |

[a] The 1964 Lead election was mandated by the state because of the addition of a series of small outlying districts to that town's schools. Four seats were given to Lead and one to the outlying districts; because of a series of resignations, none of the four Lead seats were contested.

[b] Incumbent.

Source: Minutes of the Lead, Deadwood, and Lead-Deadwood School Boards.

The school system's financial situation is another indication of lack of community support. The power to levy taxes for schools rests with the County Commission, which provides the bulk of the district's revenue, rather than with the school boards. In 1971-72, Lead-Deadwood received $1,364,530 from the county for general operations and another $58,521 for special education. The county has two variables to work with in setting taxes: the mill levy and assessment rates. Currently, the County Commission is taxing at the maximum rate that the state law allows--40 mills--but the school district argues that property in the area is systematically underassessed by as much as 20% of full value, which results in a major loss of income. Another effect of underassessment is that the district receives very little aid from the state because the state aid formula is partially based upon local assessment rates. Partly as a result of low assessments, the district received from the state only $196,000 of its 1971-72 operating budget of $2 million.

This problem of low assessment rates has existed for a long time. As early as 1967, the Deadwood board asked the county commissioners to increase assessment rates, and this request was renewed in 1969 and 1970 when the district was joined by the Lead board. While there are many reasons for low assessments and inadequate income from property taxes, a number of indicators suggest that the County Commission's action is popular and in line with community sentiment. For instance, although the Deadwood schools were in a very difficult financial situation in 1970, the comment that any savings resulting from reorganization should be reflected in lowered taxes was reported several times in newspaper discussion of public reaction to consolidation. Members of the upper levels of the district administration concur that if any proposition such as a bond issue to raise income for schools were put to a vote currently, it would fail. One administrator has described the current situation as a "taxpayer revolt."

Another contributing factor in the district's financial problems is that 268,000 acres of county land, mostly in the Lead-Deadwood district, are national forest. While the Department of Agriculture provides about $10,150 to support the school system, this figure works out to less than 7¢ per acre. The district argues that the rate should be higher because it gets on the average $1.43 per acre for agricultural land.

Low income from property taxes as well as minimal income from other sources has had its impact on both the Lead and Deadwood systems. As early as 1970, Lead's operating budget was larger than its revenue, but the system was able to make up the difference by spending reserve funds it had accumulated. This policy kept the Lead-Deadwood district in the black through 1972, but expectations were that the system would soon begin running up substantial deficits (See Table 22).

Table 22

LEAD-DEADWOOD SCHOOL DISTRICT BUDGET: 1971-72

| | |
|---|---|
| Administration | $ 50,205 |
| Instruction | $1,457,055 |
| Pupil Transportation | $ 69,031 |
| Operation | $ 188,565 |
| Maintenance | $ 52,392 |
| Fixed Charges | $ 168,144 |
| Student Body Activities | $ 10,368 |
| Transfer Accounts | $ 11,616 |
| Total | $2,007,376 |

Applications to Experimental Schools Program[16]

Faced with a lack of local support, the professional leadership in the Lead-Deadwood School District applied to the Experimental Schools program as an outside source for funding its innovative programs. In late December of 1970, the district received a copy of the first Request for Proposal sent out by OE from the South Dakota Superintendent of Public Instruction. Applications were submitted in January and May of 1971, in attempts first to get a direct grant and later a planning grant. These applications failed, but another application submitted to the Small Schools competition received a planning grant.

The Experimental Schools and Small Schools applications were in response to the financial pressures facing the district. The first application was submitted by the leadership of the Lead system in the middle of planning for reorganization. It was intended primarily to get additional monies for the program upgrading that accompanied reorganization:

> This makes the central theme for our proposal in this Project, Reorganization, with the basic objective to develop a comprehensive child-centered educational system...
>
> Recognizing that reorganization has been defined as a salvation throughout the United States, this unification of the two systems would hope to prove that the premise is correct...

Yet, the system was also concerned that it would not have enough funds for its ongoing operations when the two school systems were combined:

> the greatest handicap to the successful culmination of the (reorganization) program will be due to lack of sufficient funds to guarantee implementation without being forced to cutback. This is due to a State imposed limitation of 40 mills on Other property and 24 mills on Ag property. This maximum, set by law was reached in the Lead District four years ago.

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[16] The material and quotations in this section are taken from the district's first Experimental Schools' Application, January 23, 1971; and "The Experimental Schools Program for Small Rural Schools submitted by the Lead-Deadwood Independent School District #106."

The first system weakness mentioned in the Small Schools application was also financial; it pointed out that the district tax base was about $4,000/child lower than the average for the state.

The Experimental Schools program applications were highly descriptive and proposed few specific new programs. This is not surprising with the first application, since the superintendent has indicated that its ideas developed from the planning for reorganization which was still in process when it was submitted. Some of its general principles, however, were similar to those in later applications:

> the basic objective (of the program is) to develop a comprehensive child-centered educational system to serve the needs of each individual child for which the two districts are responsible.
>
> Re-stating the goals for the new district, they include primarily a child-centered curriculum; individual instruction to meet individual needs...

There was very little discussion of the mechanisms for child-centered, individual instruction. The only concrete suggestion was the extensive use of mini-courses.

Changes indicated in the Small Schools application were all in the areas of curriculum and teaching practices. There was some suggestion that available money would be used to expand vocational education offerings and the partly developed TV facility, but the thrust was towards developing an approach to "individualized instruction." The district philosophy was "that each child be allowed to grow individually recognizing special interests, abilities and limitations so that each can experience success through school contacts and classes, the entire curricular program is directed towards individualized instruction." The primary new development that the Experimental Schools grant promoted was described as follows:

> The major change envisioned would be by completely developing a program which would be diagnostic and prescriptive in nature for each child, in which children would never have to experience frustration through being forced to do work which is beyond their capabilities.
>
> In order to implement such a program, prescriptive educators would be needed as well as diagnosticians on a pilot level. If this program could be implemented system-wide, individualized programs could be prescribed for each child with measurable success because of pre and post testing procedures. [Italics added]

Thus, the major theme of the program, one that is consonant with the language and ideology of professional educators, was sounded in this application; and the language for describing the primary mechanism--diagnosis and prescription--was used, although a great deal of work would be needed before actual procedures were specified. Much of that work was done during the planning year and falls outside the scope of this discussion.

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# Chapter X

# A Social and Educational History of Quilcene-Brinnon, Washington

by

Carol and Michael Colfer

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# A Social and Educational History of Quilcene and Brinnon, Washington

Area: Approximately 100 square miles. Approximate population (1970): Quilcene--1,000; Brinnon--400. Elevation: from 30 to 500 feet. Center of the School District is at latitude 47°30' North and at longitude 123° West. From Quilcene, Port Townsend lies 26 miles to the northwest, Seattle lies 40 miles to the east by road and ferry, and Port Angeles lies 47 miles to the northwest. Shelton is 45 miles south of Brinnon. Major settlements are Quilcene (unincorporated, settled circa 1860), and Brinnon (unincorporated, settled circa 1861).

## INTRODUCTION

Jefferson County is a long, narrow county which straddles the Olympic Peninsula. It stretches from the Pacific Ocean on the west to Hood Canal in Puget Sound on the east. Jefferson County's population is largely clustered in the northeastern corner which borders on the Strait of Juan de Fuca. Port Townsend, with 6,174 people, contains over half of the county's population of 10,022 (Jefferson County Comprehensive Plan, 1970); Chimacum, Port Gamble, and other small towns are scattered nearby. Approximately 26 miles to the southeast of Port Townsend lies the town of Quilcene; Brinnon is located 14 miles farther south, on Highway 101.

Both Quilcene and Brinnon are unincorporated, making precise population figures impossible to determine; however, Quilcene has approximately 1,000 people, and Brinnon close to 400. Both towns

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border the waters of Puget Sound, and most of their population clusters on the lower plains, which are between 30 and 500 feet in elevation.

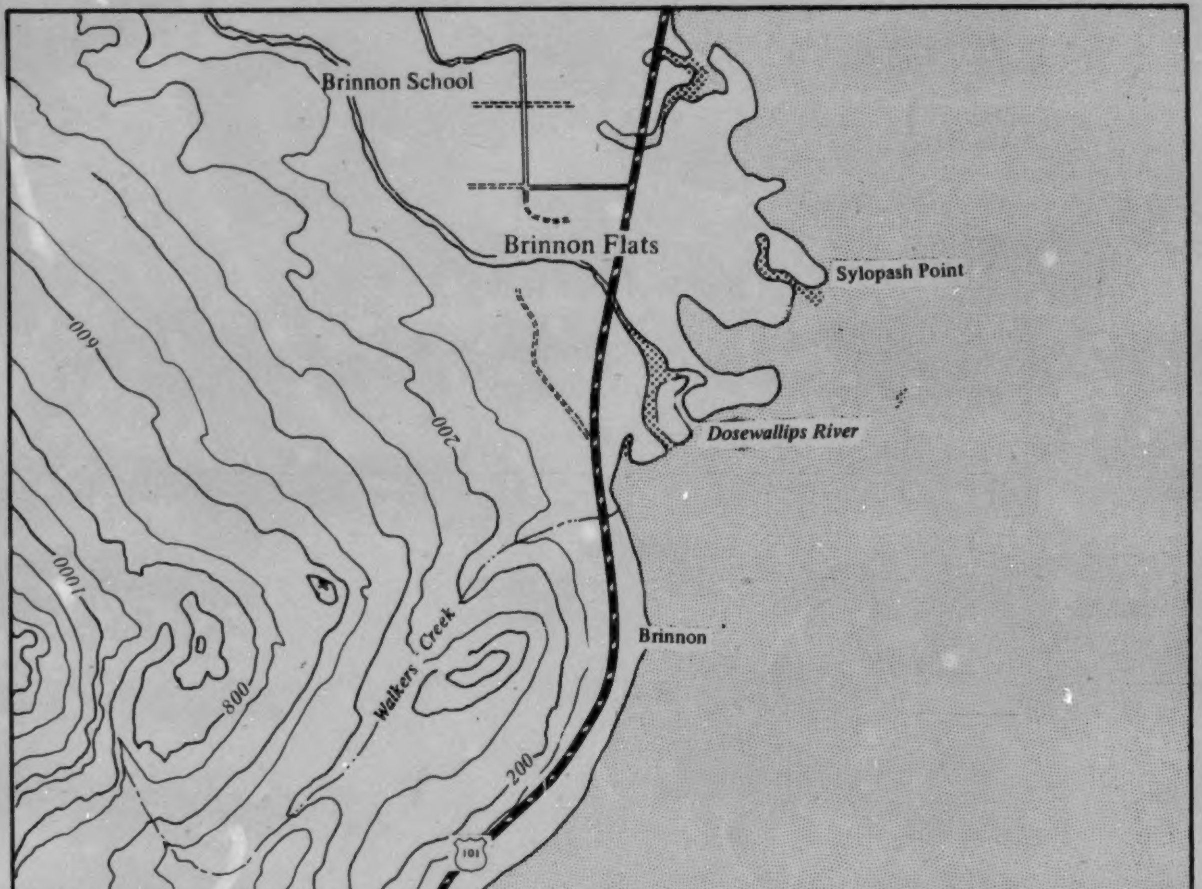
Settlers first appeared in the area in the mid-1800s. For a time, Quilcene was known as Colseed or Kolacene. Duckabush (sometimes spelled Duqueboos) and Dosewallips were at one time considered separate communities, and are now parts of Brinnon. The Quilcene school district includes the communities of Leland, Coyle, and Tarboo, and for some purposes the distinctions are still made.

Larger towns outside the county include: Port Angeles (population 19,836), which is 47 miles northwest of Quilcene on Highway 101; Shelton (population 10,612), located 45 miles south of Brinnon on Highway 101; and Olympia (population 29,660), located 28 miles beyond Shelton. All of these cities are easily reached by private automobile. There is no bus, plane, train or other public transportation into, out of, or through Quilcene or Brinnon. Seattle (population 532,412) can be reached via toll bridge and ferry over several routes. The most common route incorporates the ferry which runs between Winslow and downtown Seattle. Secondary routes incorporate ferries which leave from Kingston and Bremerton. All of these routes cross the Hood Canal toll bridge ($1 per car, $.30 per person, one way) and then involve a 20-30 minute ferry ride ($2.75 per car, $.85 per person, one way). During the summer months, a ferry runs from Port Townsend to Whidbey Island (40 minutes north of Seattle). While Seattle is approximately only 40 road miles from Quilcene, the trip takes about 1-1/2 hours even if ferry connections are optimal.

## BASIC GEOGRAPHY, GEOLOGY AND ECOLOGY

Puget Sound is a huge system of bays, inlets, channels and sounds, all interconnected and leading south from the Strait of Juan de Fuca for some 75 or 80 miles. It is studded with lush green islands and "blessed" with some 60-80 inches of rain per year. Puget Sound separates the Olympic Peninsula from the mainland. The Peninsula itself, about 90 miles long by 80 miles wide, is mostly wilderness area. The Olympic Mountain Range forms its backbone, and contains many peaks above 6,000 feet and one--Mt. Olympus--at 7,915 feet. This range causes an atmospheric updraft which milks the incoming westerly winds of incredible quantities of moisture. Rainfalls of over 100 inches annually are common on the western slopes of the Olympics, giving rise to huge expanses of rain forest (temperate jungle). These rainfalls and their runoff permit the growth of magnificent stands of fir, cedar and spruce on both slopes of the mountains. The western coast of the Peninsula is rugged and cliff-lined, with rocky beaches for much of its length and no protected harbors. The northern coast, along the Strait, has several protected harbors--the principal ones being Neah Bay, Port Angeles, and Port Townsend. The Port Townsend area itself also has several good harbors, including Sequim Bay, Discovery Bay and Port Townsend Bay. The eastern shore of the Peninsula is formed by Hood Canal, a natural body of water originally called Hood's Channel. Hood Canal opens up from Admiralty Inlet at the head of the Strait and runs south by southwest some 44 miles, then turns northeast for an additional 11 miles (U.S. Coast Pilot #7, 1968). It averages two to three miles in width and 200-400 feet in depth, with some spots of 600 feet (ibid., p. 266).

At the southern end of the northern quarter of the Canal is a large bay approximately 4-1/2 miles wide at the mouth which runs north for 9 miles. Originally called Tarraboo Bay, it is now known as Dabob Bay. About 3 or 4 miles inside the entrance to Dabob Bay, Quilcene Bay opens up to the northwest and runs north by northwest for nearly 4 miles. Quilcene Bay is fairly deep at the entrance, but becomes shallow quickly, so that the northern-most mile or so is exposed at low tide. Two small rivers enter it near its head. The northern river is the Little



Brinnon School
Brinnon Flats
Sylopash Point
Dosewallips River
Walkers Creek
Brinnon
101
HOOD CANAL
Pleasant Harbor
Black Point
200
400
600
800
1000

Fig. 1. Topography of the Brinnon area.

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Quilcene River, and the larger, southern one is the Big Quilcene River. Both rivers flood in the spring, covering much of the surrounding flats. Neither bay affords natural protection from the occasionally fierce southerly winds of late fall. In the mouth of Dabob Bay, there is a small cove (Jackson Cove) which is somewhat protected. The best natural harbor is Pleasant Harbor, at the southern end of Brinnon.

Quilcene Bay was the only inland waterway affected by the huge Alaska quake of 1964, apparently because it was situated just right to capture the residue of tidal upset. The event is referred to as the Quilcene tidal wave. For several days the bay surged at about 20 minute intervals, tearing out the log booms and spreading loose logs all over. The beaches as near as Brinnon were totally unaffected, however.

Brinnon begins at the foot of Walker Mountain (2,700 feet) and runs south past the Duckabush River, a total of some 14 miles. There are huge estuarine flats at the mouth of both of Brinnon's rivers (see Figure 1). The Dosewallips estuary extends far out into the canal and is extremely treacherous in foul weather, especially when a rip forms there at a tidal change.

The temperatures do not vary greatly year round. Winter low temperatures rarely go below 10-15°, and summer high temperatures rarely above 90°. Winter temperatures may go as high as 50°, and summer temperatures can dip to 40° (Jefferson County Agriculture, 1956, p. 22). The U.S. Weather Bureau Climatological Data, Washington Annual Summary, 1956, give an annual average temperature of 49.9°. Rainfall varies from 25-80 inches, depending on the location and the surrounding hills (Figure 2); the average annual precipitation is 47.15 inches (ibid.).

The area in which the school district is located has no significant mineral deposits. In the late nineteenth century, there was a fairly large mining rush in the Olympics which affected both communities, but no commercial, profitable mines resulted (Taylor, 1972). The soil along the river valleys is fertile and deep; most of the countryside, though spectacularly beautiful, is forested and unsuitable for agriculture (Figure 3). In fact, the largest

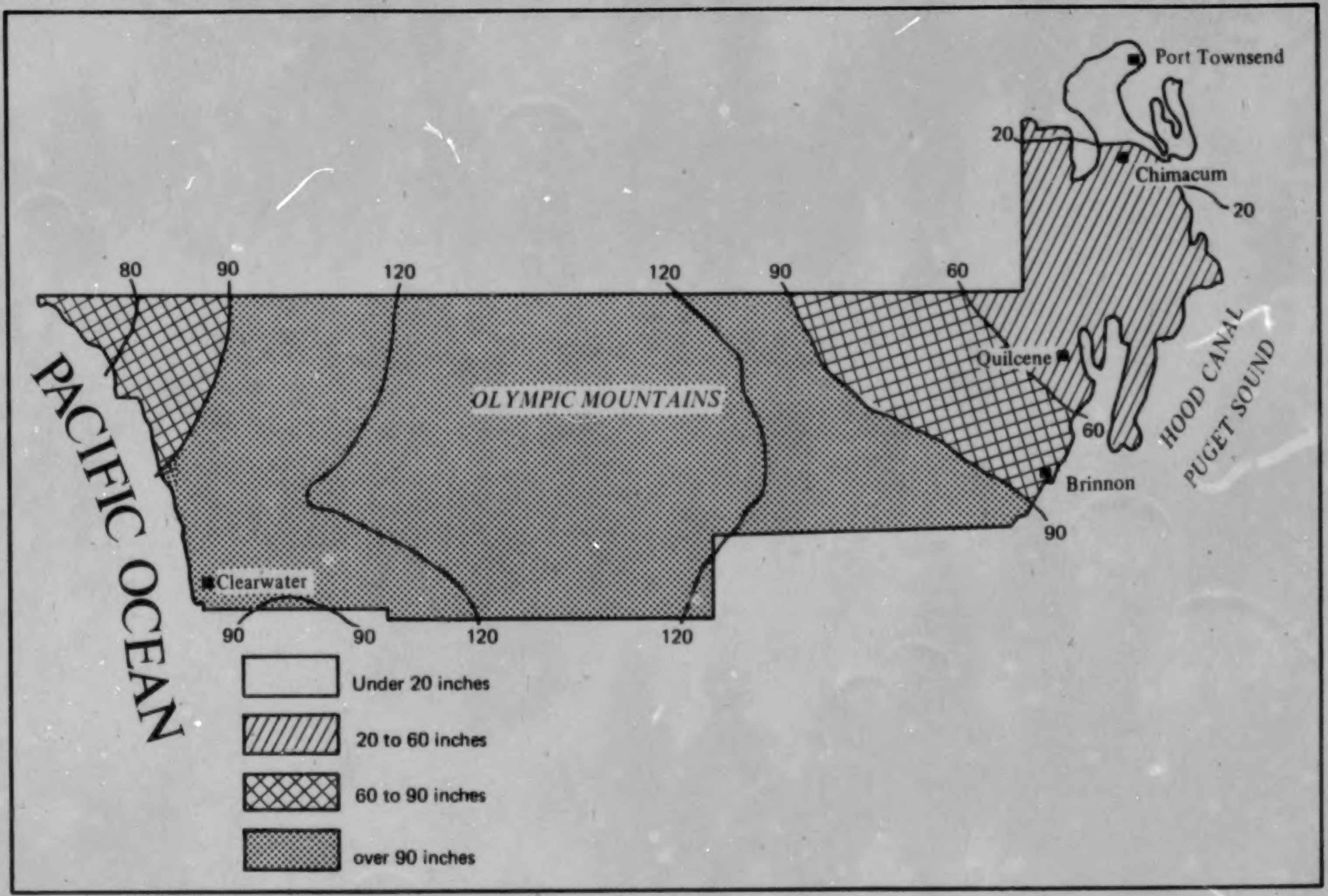
Port Townsend
Chimacum
20
20
HOOD CANAL
PUGET SOUND
Quilcene
60
60
Brinnon
90
90
120
120
90
80
OLYMPIC MOUNTAINS
PACIFIC OCEAN
Clearwater
90
90
120
120
Under 20 inches
20 to 60 inches
60 to 90 inches
over 90 inches

Fig. 2. Distribution of precipitation, Jefferson County.

Source: U.S. Weather Bureau, Climatological Data, Washington, Annual Summary, 1958 natural resource of the area is timber. The logging industry fluctuates according to the needs of the building and export markets; some decrease in size and availability of lumber has been apparent over the last century. However, because timber grows quickly in this area, reforestation has improved lumber production and has increased production projections for the future.

While water would seem to be no problem, it turns out to be a major consideration. Ground water is plentiful, but the clustering of houses, plus the lack of a city water system and reliance on wells, results in frequent well contamination from nearby septic tanks. Availability of untainted water becomes a prime factor in home building in this area. Acquisition of a water system is possible in Quilcene, but would cost the community over half a million dollars, and local residents are reluctant or unable to invest that amount of money.

As might be expected in an area of this description, edible flora and fauna are in abundance. The mountains and forests abound with deer and elk. Herds of Olympic Elk frequent the river valley of the Duckabush within a 10-minute drive of the center of Brinnon. Yet it is the Sound which in many ways dominates. In Hood Canal and Dabob/Quilcene Bay there are several annual salmon runs. The most common of the many varieties of bottom fish are rock cod (*Sebastodes pinniger*), red snapper (*Sebastodes ruberrimus*), flounder (*Eopsetto jordani*), and ling cod (*Ophiodon elongatus*). There are, in addition, shrimp and crab populations. Along the shores are several varieties of clam and the now famous Quilcene oysters. The area is also famous for its abundance of Geoducks, an extraordinarily large type of clam.

The introduction of the Japanese oyster seed in 1930 by G. T. Morgan (Steele, 1964) marked the beginning of a new industry, a new source of food, and a great tourist attraction. The Japanese oysters were planted in 1930 and left alone for several years. By 1932, seeds were formed on shore rocks in Quilcene Bay. Another large spawn in 1934 and 1935 populated the shores of the bay permanently. In 1938, an association of 12 oyster farms around the state set up an oyster seed operation, but the floats were destroyed by late fall storms and the venture was abandoned (*ibid.*). By this time, however, R. Canterbury had established

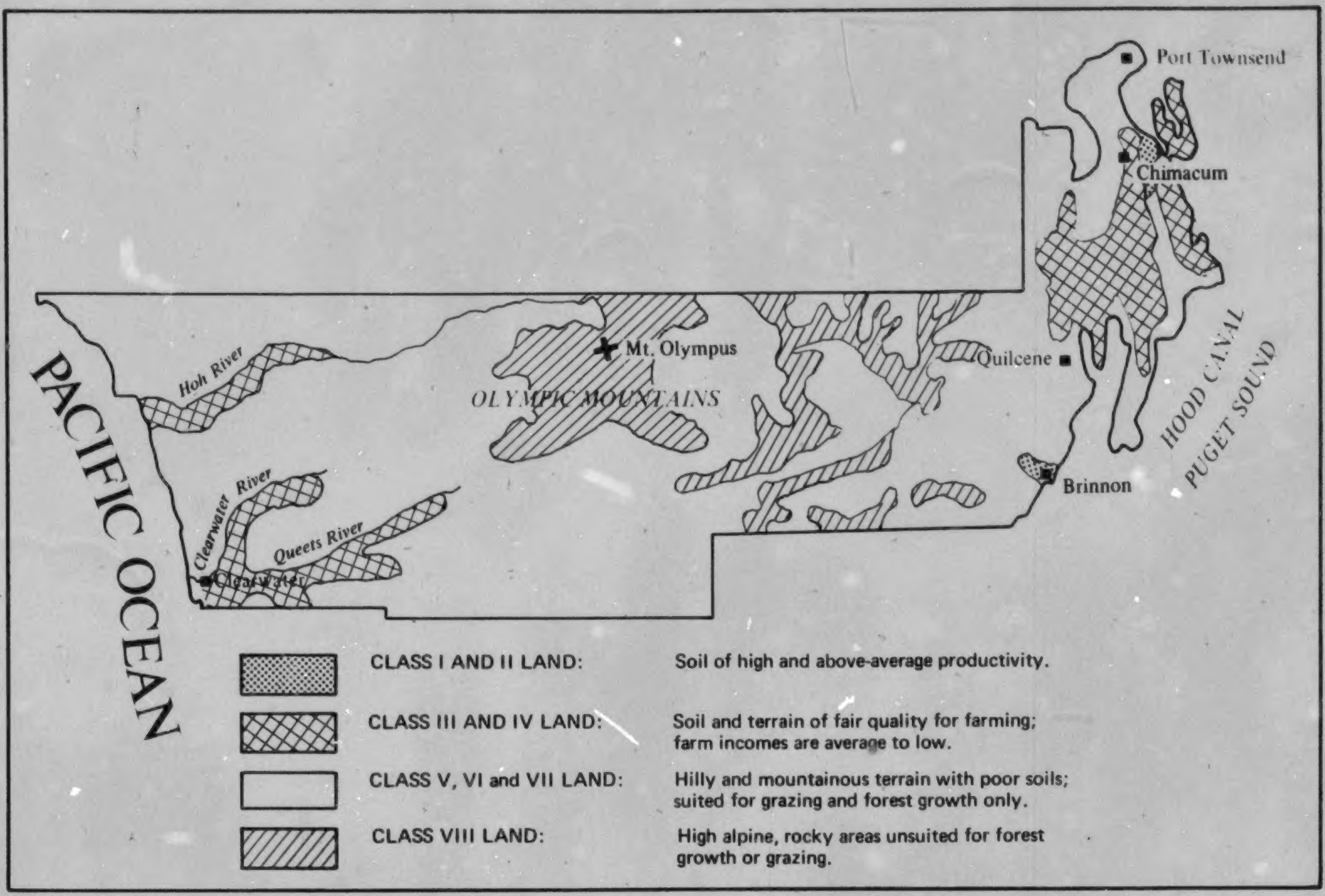
Port Townsend
Chimacum
HOOD CANAL
PUGET SOUND
Quilcene
Brinnon
Mt. Olympus
OLYMPIC MOUNTAINS
Hoh River
Clearwater River
Queets River
Clearwater
PACIFIC OCEAN
CLASS I AND II LAND: Soil of high and above-average productivity.
CLASS III AND IV LAND: Soil and terrain of fair quality for farming; farm incomes are average to low.
CLASS V, VI and VII LAND: Hilly and mountainous terrain with poor soils; suited for grazing and forest growth only.
CLASS VIII LAND: High alpine, rocky areas unsuited for forest growth or grazing.

Fig. 3. Soil quality of Jefferson County.

Source: Generalized from map, Washington Generalized Classification of Land According to its Capability For Use. Published by U.S. Soil Conservation Service and Washington State Agricultural Experiment an oyster farm on the shores of Quilcene Bay at the end of Linger Longer Road. Oyster harvests for the bay were good to excellent through 1942, but tapered off to nearly nothing in 1944 and 1945. This pattern was repeated in the mid-1950s. In 1972, however, oyster farms had an excellent harvest. Public access beaches literally swarmed with oyster pickers and clam diggers from the "other side" (Seattle and Tacoma) when a weekend and a low tide coincided.

The people of Quilcene and Brinnon set great store by the fact that they live every day in an environment to which thousands of city people come for a special treat. They appreciate the abundance of food in the environment and use it to supplement their diet. The availability of food and ability to harvest it from the natural environment contributes to the frontier atmosphere of the area and to the spirit of independence of the local residents, values not usually found in an urban setting. This independence permeates every aspect of the community.

Because of the geography of the area, local residents feel that Quilcene and Brinnon are set apart from the more populated communities of Port Townsend and Seattle. Boat travel is easy from Port Townsend around the headlands in either direction: eastward to Admiralty Inlet and south down the Canal, or westward to Discovery Bay and then south. To reach Quilcene or Brinnon by this latter route, however, necessitates overland travel across the ridge to Quilcene Bay, thence again by boat down the bay(s) and Canal to Brinnon. This was the route most often used in the early days of settlement. In our time of automobile travel, the expense of the tolls to Seattle has fostered an ethic of isolation which is as real as the isolation of a century ago.

Brinnon is even more isolated than Quilcene. There is no ferry service or convenient bridge across the Canal. There is no public transportation out of or into Brinnon, and Highway 101 south to Shelton is twisty and difficult. Brinnon then must rely on itself as a community for many services that otherwise might be easily obtainable from neighboring communities. Even the use that Brinnon residents make of Quilcene high school necessitates a long (20-minute) ride across Mt. Walker, which frequently ices over in the winter. The isolation of the area requires that people help one another in times of need, and such mutual aid has become a tradition in Brinnon. People trade labor frequently.

On the other hand, the very abundance of the environment makes dependence on outside factors less necessary. Oysters and clams are there for the picking. Crab pots can be set at any time of the year. During various times of the year, shrimp, salmon, and other fish run. Deer and elk can be hunted in season. And in the fall, berries grow in abundance. Most people have cupboards full of canned goods from their gardens.

The incredible beauty of the area, the heavy rainfall and temperate climate, the abundance of flora and fauna, all contribute to the unique atmosphere and cultural configuration in the two communities.

The Olympic Peninsula has a million shades of green, several hundred blues, a few greys and not much else in terms of color, save wild daffodils and rhododendrons in the spring. There are high alpine meadows in the Olympics, warm shallow bays in the Sound. For those who would live in rather than visit a semi-wilderness, Quilcene and Brinnon are ideal, but it is not for those who feel the need of movie theatres, stage, shopping centers, and central heating.

## EARLY HISTORY OF QUILCENE AND BRINNON

### From Settlement to 1900

An act of Congress formed Oregon Territory in 1848 (Daly, 1966, p. 4). That huge territory encompassed what is now Oregon, Washington, Idaho, and parts of Montana and Wyoming. In 1852, Jefferson County was formed by the Oregon Territorial Legislature in Bill No. 20. Two weeks later, the county seat was established in Port Townsend (ibid., pp. 4-5). At about the same time, a few white settlers were moving into the Hood Canal area along the shore that was to become Brinnon and Lilliwaup (Port Townsend Weekly Leader, January 2, 1890). In 1853, the separate Territory of Washington was created, along with a new Clallam County which cut the old Jefferson County in half.

Unlike other pioneer communities, settlement of the area around Quilcene and Brinnon was not affected by the Indian population. There were never large numbers of Indians in the area, and little reliable information is available on them. Eva Taylor (1966a, pp. 164-5) suggests the following about Quilcene's Indian population:

> There were not a great number of Indians on Quilcene Bay; it was more of a camp they inhabited when the fish were running. The permanent Indians were said not to be a part of the Skokomish to the south or the Clallams to the north, but a branch of the Quinaults from the west, who came over the Low Divide, and over the notch in Green Mountain. If this is so, the Indians chose a most difficult, arduous route to reach tidewater, instead of the easy way down the Dosewallips. If the legend is true, it would be interesting to know their overpowering reason to climb to 7,000-foot high Constance Pass, over into the Dungeness, on to the head of the Big Quilcene, and finally up over Green Mountain and down to Quilcene. We shall probably never know the true facts, though early day settlers claim they found signs of Indians at the notch.

Mary Ann Lambert (1972, pp. 38-39) documents the introduction of smallpox into the area, sometime after 1856. She refers mainly to the area along the Strait of Juan de Fuca, but given the mobility of the Indians, it is probable that the smallpox epidemic also took its toll among the Indians further south. The paucity of information about the Indians of this area may be accounted for by the fact that the smallpox epidemic and the introduction of measles[1] so reduced the population of Quilcene and Brinnon Indians that they had little influence on the settling of the area by whites.

The immense stands of timber and the natural waterways for log transport drew lumbermen almost immediately after the formation of the Territory of Washington. The Washington Mill Company established a working camp in what is now Quilcene sometime around 1855 (Port Townsend Weekly Leader, January 2, 1890). But it was the growing shipbuilding industry in Port Townsend and Seabeck that drew the first permanent settlers to Quilcene. In 1860, one Hampden Cottle, a logger from Maine, began digging out fir root for ship's knees along the Olympic slopes, selling these in Port Townsend and Seabeck. He established a claim on Quilcene Bay and was soon followed by his nephew Samuel Cottle, two Vermonters, a Swede, and several others. They came to log and to farm part of the time, setting a pattern that was to endure in Quilcene (Taylor, 1966a, p. 163).

At about the same time that Cottle settled in Quilcene, Thomas Pierce, in preparation for marriage, was fixing up his cabin and farm on the south bank of the Dosewallips River. Pierce had bought the rights to his farm from Elwell Brinnon for $1,000, when Brinnon and his wife had moved over onto the Dosewallips estuary (Brinnon Flats).[2] Pierce, meanwhile, returned to Maine to marry his sweetheart and brought her to the Dosewallips, probably in 1861. She was the first white woman in the area. By 1880 there were 53 people in Quilcene (Taylor, 1966a, p. 166).

During the early 1880s Quilcene grew quickly, and thousands of board feet of timber were burned simply to clear the land for farms. Despite its rapid growth, Quilcene remained isolated. Mail came to Quilcene and Brinnon across Hood Canal in a canoe from Seabeck; in 1882 Samuel Cottle began bringing the mail down from Port Townsend on horseback.[3]

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[1] Eva Taylor, personal communication, February 8, 1974.

[2] The Brinnons lived in the house they built in Brinnon Flats until 1895, when Brinnon died. Today, the house is occupied by Marvin Lorenzen (Walt Kelly, personal communication, May 30, 1973).

[3] Also in 1882, Sam Cottle introduced a new settler from Seabeck to the area, L. D. McArdle, who would one day become famous in state politics.

There was not a serviceable road to Port Townsend from Quilcene, and none from Quilcene to Brinnon. Travel between the latter two towns was either along the bay shore or on the water in boats. The isolation and primitive nature of the area were made bearable by the outstanding neighborliness of the local people, however (McArdle, n.d.). Game kills were shared, everybody worked hard, and it was a happy community. The values discussed by McArdle have continued to be cherished by the people of Quilcene and Brinnon.

Lillian Miller Christiansen, an early Brinnon pioneer, wrote very similar things about Brinnon in 1892-3 (Jefferson County Historical Society Library, n.d.). Her very personal account vividly portrays the physical hardships endured by those early pioneers--hardships lightened by the abundance of game, fish, and fruit, and by mutual interdependence and hospitality. Childhood activities, for instance, were limited, and included listening to elderly raconteurs, such as one Mr. Clements, a sailing captain from Maine.

At about this time, the Oregon Improvement Company began implementing a scheme to connect the Olympic Peninsula with Olympia, Portland, and the transcontinental railroad. Local people all assumed that Port Townsend would be the major seaport for Washington and the largest industrial center for the area. Work was begun on the grade from Port Townsend south toward Quilcene in 1889. The initial planning called for a railroad south to Quilcene, regular steamers from Quilcene to Union City at the southern end of Hood Canal, and rails again south toward Olympia and the transcontinental railroad. The country between Quilcene and Union City is very rough, and railroad progress over this area was to be slow. In the meantime, then, Quilcene would become a railhead and transshipping point of no small importance.

The Port Townsend Weekly Leader in February of 1890 listed recent purchasers of land in Quilcene in an obvious attempt to get others to follow suit. A great future was seen for the little village by the bay. That issue of the paper takes note of a population of 400 for the village, a new school house, and the fact that two trading schooners made Quilcene a regular port of call.

By the end of 1890, the railroad tracks were only a few miles up the now completed grade from Port Townsend; the grade across Walker Mountain was surveyed and ready for work; the depot was laid out and trestles were being built across the Quilcene Rivers. In March of 1891, the Oregon Improvement Company ceased work on the Port Townsend Southern Railroad, proving that rumors which had been circulating in Quilcene for several months were true. Businessmen in Port Townsend, firmly believing that the connection would eventually be made with the transcontinental rails anyway, completed the last several miles of track to Quilcene (Seattle Post-Intelligencer, August 22, 1965). The first train arrived on July 9, 1891. But by that time, so many celebrations had been planned for so many first arrivals which had not materialized that not much of anything marked its arrival. A telegraph office was set up in the new depot, built on Linger Longer (then the main street of Quilcene). Mail service was taken over by the rail, as were freight and passenger service. It soon became clear that the long awaited connection would not be made, however.

But Quilcene continued to grow. When John Clements from Brinnon and John Ryason came down out of the Olympics with gold, silver and copper ore assaying at $20, $4, and $5 respectively (Quilcene Queen, June 11, 1891), the Quilcene boom was on (Figure 4).

In addition to mining, the settlers also supported themselves by farming and logging. While the land on the river flats was good farmland, the majority of the people worked at logging. At first, trees were felled directly into the rivers to be floated out at high tide. Later, ox trails were cut within a mile or so of the rivers, and the timber was dragged to the water. A couple of slides were built down mountain slopes to the rivers and bays,[4] and the railroad, from which so much had been expected, was used only to transport logs. The trains carried logs to a long trestle over Quilcene Bay; midway down the trestle stood a large fuel tank which was supplied by tanker barges from Seattle. At the end of the trestle was a huge log boom where the logs were secured to form rafts and then transported to mills in Seabeck and to the other side of Puget Sound.[5]

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[4] Walt Kelly, unpublished, undated manuscript.

Logging was a hard way for a man to earn a living, and their wives had to be just as strong. These women remained alone on isolated mountain homesteads with children, crops and animals to care for, often for a week at a time. As it often happens in pioneering areas, the strength and endurance of the women built the community.

In May of 1891, a new newspaper in the county, the Quilcene Queen, was published by Milton F. Satterlee out of a log cabin on a bank of the Big Quilcene River. Satterlee had been recruited from a small town in Wisconsin in 1890, and had been promised support, circulation, and endless growth (Satterlee, 1952). The Queen touted praises of a veritable Garden of Eden, but neglected to mention the fact that said land of milk and honey was maintained largely by the awesome, Herculean efforts of the town's women. Satterlee was certainly a good promoter, if somewhat cavalier with the truth. His weekly paper did contain many advertisements for land and opportunity in Quilcene, as well as a "Queen's Throne" column which contained much of interest. In his first issue he listed 16 businesses in addition to the Queen:

| | |
|---|---|
| M. F. Hamilton | Gen. Merchandise and Post Office J. F. McArdle, Manager |
| W. J. Worthington | Gen. Store, Dealer in Produce & Furs bought in Quilcene (transported to Seattle on his sloop, "Ellen") |
| F. A. Robinson & Co. | Dry Goods to trade for Produce |
| Mrs. S. L. Etter | Milliner & Dressmaker |
| Horace (Hod) Stiles | Hotel Quilcene: Wine, Liguor, Cigars |
| R. M. Stevens | Barber, Boarding House/Lodging House |
| W. A. Wilcox | Ox Tail Saloon |
| R. S. Fulton | Blacksmith |
| B. G. Smith | Wagonmaker, Repairwork |
| G. A. Seitzinger | Carpenter, Boatbuilder |
| Flickinger & Hamilton | Contractors & Builders--Plans in an artistic manner |
| W. R. Hart | Contractor & Builder |
| Beckner Bros. | Sawmill |
| Ostrander & Kingdom | Railroad Contractors and Graders |
| Zee Zang & Co. | Restaurant Contractors |
| R. K. Lee | Carpenter & Builder |

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[5] Julian and Nellie Oen, personal communication, May 21, 1973.

Satterlee claimed that lobsters were available in the bay and that they sold for $.25 each in Port Townsend. While the Port Townsend Weekly Leader of February 13, 1890, had reported that in 1889, 200 live lobsters and 640,000 eggs were transplanted into Port Townsend Bay from the East, no further mention of lobsters has been found, and they are not now available. Whether the Quilcene lobster was a figment of Satterlee's fertile imagination or whether he mistook a crawdad for a lobster is unclear.

In those early years, entertainment was provided by occasional dances and socials, and by the Quilcene Literary Society. This society met on Saturday nights in Etter's Hall to present debates and programs which were evidently primarily humorous in intent. In May of 1891, three of the six officers were women (Quilcene Queen, 1891).

Sunday School was held at 10:00 a.m. in Etter's Hall, and the Rev. R. Vernon Rice gave sermons at 2:00 p.m. the first and third Sundays of the month during the reign of the Quilcene Queen. Church was held first in what is now Ray Ward's place, near the Big Quilcene River, and later "uptown" (the present center of town).

In June of 1891, Quilcene boasted a population of 500, and that issue of the Quilcene Queen (Vol. 1, No. 2) points out that the air was smokey from the clearing of farm land. (Due to the lack of sawmills and the low productivity of those in operation, lumber was scarce where timber was plentiful.) Land was advertised in the Quilcene Queen for $100 per acre, up 300% from 1889, when land was advertised in the Port Townsend Weekly Leader at $2,000 for 80 acres on Quilcene Bay. Lots, probably 50 x 100 feet, were advertised at $75-$100 in the area of the planned railroad depot. A beaver skin brought $7, and a sea otter skin brought $9. The road to Port Townsend was in operation (a veritable turnpike, said Satterlee in June, 1891), and a dance in Quilcene drew 40 couples for local music.

Down in Brinnon, people were more isolated than in Quilcene. There were no roads out of Brinnon at all and only narrow trails within the community. Passengers and freight were transported by rowboats between anchored vessels and the beach at Solwold's store and post office. Taylor (1966, p. 173) documents the long struggle for a road to Brinnon.

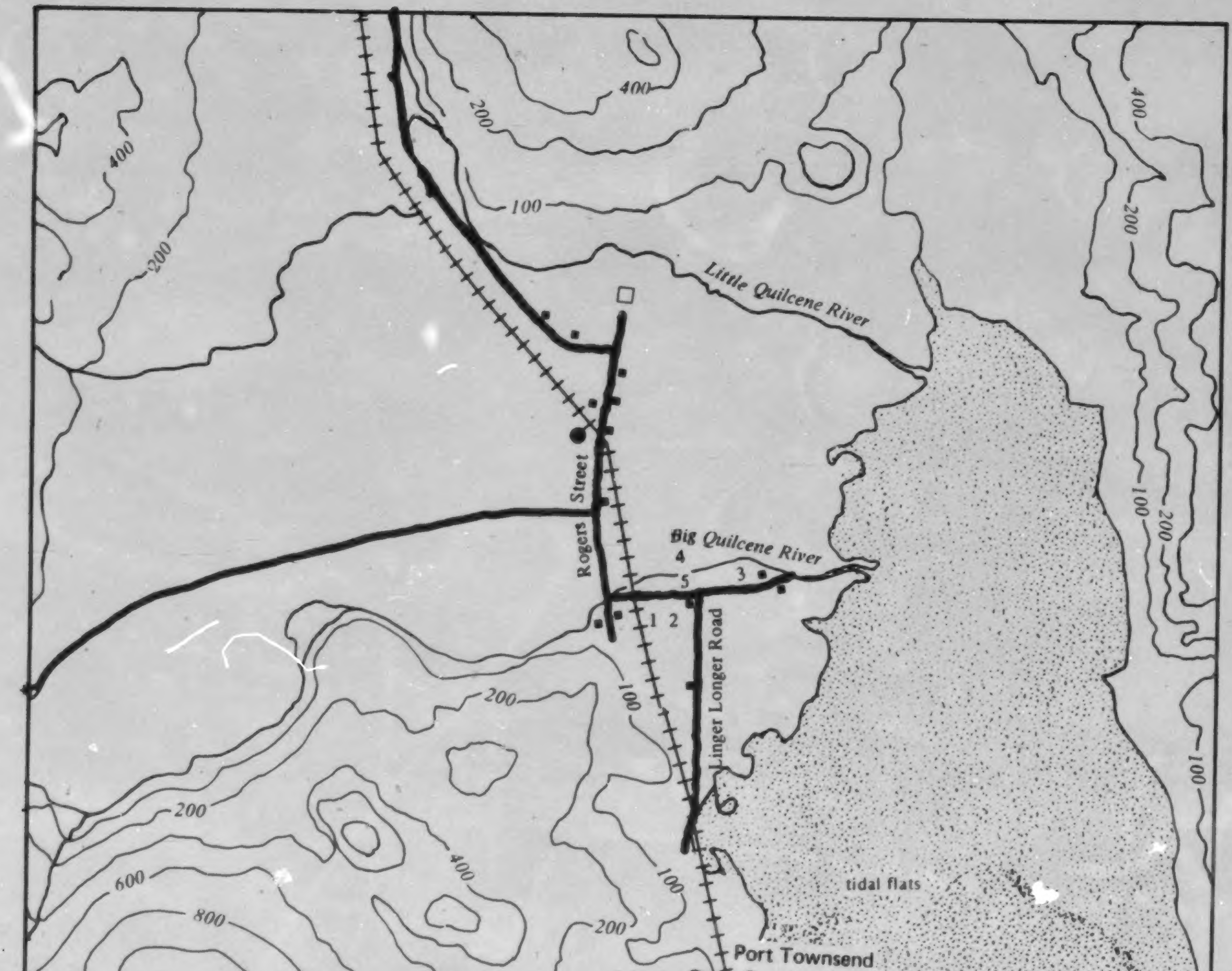
Little Quilcene River
Big Quilcene River
Rogers Street
Linger Longer Road
Port Townsend Southern Railroad
tidal flats
Quilcene Bay
Mt. Walker 2804
1
2
3
4
5
100
200
400
600
800
1000
1200
1400
1600
1800
2000
2220
2400
2600
☐ School
● Church
1 Depot
2 Quilcene Trading Co.
3 Hart's Hotel & Saloon
4 Shingle Mill
5 Beck's Blacksmithy
▪ House

Fig. 4. Quilcene, 1895.

In 1870, one Hauptly and 53 others from Brinnon and Quilcene petitioned for a road from Colseed (Quilcene) Bay to Mason County to the south. It was first refused, but then was granted in 1871. In 1881, however, Clements was still appealing for the road. After District No. 6 was established in 1881, one Rev. Eells rowed to Brinnon to conduct services in the new school building. For a long time, the Brinnon teacher was Lou Seitzinger from Quilcene, who rowed home on weekends. In 1892, the road was surveyed for a second time and established, but not built. The bridge over the Dosewallips had been built and was waiting for the road, however, which had been delayed because local homesteaders were working off their poll taxes on a trail to Mason County. In 1896, 26 years after the first petition, the road was finally built from the Big Quilcene to the Dosewallips River.

The isolation of both Brinnon and Quilcene is indicated by the fact that outside events had little influence on either community during those early years. Even the Civil War, which laid raw half the United States, passed by Quilcene and Brinnon without a ripple. There were no Civil War heroes in either town; if those who fought in the war came there, they must have left their bitterness behind, or it was washed away by the Northwest rains and the difficulties they faced as pioneer settlers. At any rate, there is little mention of the Civil War in early records.

## Early History of the Schools

In 1877, School District No. 5, running from Leland, near Discovery Bay, all the way to the Duckabush River--a distance of some 25 miles over very rough terrain--was formed. It is no surprise, then, that in 1879, when there were 30 school-age children listed in that district, only five were enrolled in school and only four were attending it (Jefferson County Superintendent of Schools, Superintendent's Records, General Record, Vol. 1). There were 28 voters in the district in that year. The first school board had been established; its elected members were John Such, James Donavon, Sam Cottle and Hampden Cottle. The district had a school building valued at $100 and equipment valued at $16. There was one male teacher whose salary was $25 per month.

In January of 1881, Virginia Hancock became Superintendent of Schools for the county. Two weeks later she received a petition from several families along the Duckabush and Dosewallips Rivers for a school to be established there, pointing out that they had 18 school-age children in the community and that it was a long way over Walker Mountain to Quilcene, a sentiment still held today by many parents in Brinnon. A measure of the difficulty of communications in those years is that the petition was sent in the name of Hancock's predecessor, and thus news of the change in superintendent had not reached Brinnon in time for the petition to be sent in the proper name. The change was made in Port Townsend, some 40 miles from Brinnon. As a result of the petition, District No. 6 was formed, and one Josie Pierce was appointed teacher in 1881. When Hancock visited the two southern districts in the spring of that year, she noted that the Quilcene teacher did not have "good government" in her school, though the school board seemed satisfied with her work (ibid.). It is apparent from this that in 1881 there was still only one teacher, and the position was held by a woman.

The Leland Valley School District, No. 7, was formed in 1883. In the fall of that year, there were 27 children in District No. 5 (Quilcene), 20 in No. 6 (Brinnon) and 13 in No. 7 (Leland) (ibid.). L. D. McArdle became the teacher in Quilcene in 1883, teaching in a log cabin school near the Little Quilcene River. He started a dance school for both young and old residents.

In 1885, the Superintendent reported in her records that attendance and punctuality were both very poor in Quilcene. The blame for this situation was placed squarely on the shoulders of local parents, who were not cooperating with the spirit of education. The little log schoolhouse on W. J. Worthington's property was dark and not conducive to study. The community was in need of a new building and was finally moved to replace the old one after a flood washed it away.

The new school building was built in 1887 just north of the present Bert Kruse property, also on the Little Quilcene River. It was erected at a cost of $1,200 and was a T-shaped structure, with a dance floor (Port Townsend Weekly Leader, February 13, 1890). McArdle was still teaching[5] and was reported in the Superintendent's General Record as keeping good order and having the respect of his students (three girls and two boys). The district was involved in a dispute with District No. 7 over monies allocated from the county for some students who had moved from one district to the other. While monies were allocated from the county on the basis of how many children were in the district, it is not clear if, in fact, these students were even attending school. Nevertheless, it had been necessary to raise extra monies, and the Leader reported on February 13 that "...the district is providing a fund from special taxes...." Quilcene had its first special levy for the schools, then, in 1887. Not all of Quilcene's residents were happy with this levy, as is made clear by one "old settler" who complained bitterly to the Leader that the town was growing all out of proportion and that he now had to pay taxes for "...schoolhouses with steeples and patent writen desks...." From some perspectives the cost of schools in rural America was already extreme and still is.

The Quilcene Queen of June 11, 1891, gives a school enrollment of 51 with an average attendance of 43. Seven children had perfect attendance records and 10 earned above 90 grades. At this time, the school enrollment was considerably swelled due to an influx of new residents in Quilcene who found work on the Port Townsend Southern Railway grade, tracks, and trestles. Some of these workers had families with them. (See, for example, Satterlee, The Dub of South Burlap.)

In 1908, Union High School District No. 1, serving students from Quilcene and Leland school districts, was formed. In 1909, one of the students fell into the river and drowned, and the community became concerned over the building's proximity to the water. A new, concrete building was constructed in 1910 in the center of Quilcene near the railroad crossing. By 1911, in addition to local taxes and county funds, state funds were also being contributed to the local school districts. In 1916, the state funds for rural high schools were increased on a high school bonus system. Quilcene-Leland High School Union No. 1 graduated four students in that year.

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[5] It seems likely that it was McArdle who first proposed having a dance hall in the school.

The Quilcene, Brinnon, and Leland school districts all had similar curriculum programs during this time, since both the county and the state influenced local education a great deal. In 1912, for instance, Jefferson County adopted the Riverside Readers as a basic text for the first six grades, and Curry's Literary Reader for the seventh and eighth grades, together with Stepping Stones to Literature as a supplemental text.

In 1920, the two teachers in Quilcene and Brinnon wanted to exchange positions. The Brinnon teacher was having problems handling children whose parents were uncooperative, and the Quilcene teacher wanted to move to a rural(!) school. The two school boards met with the County Superintendent of Schools and all parties involved agreed to the exchange. The superintendent went home to Port Townsend, but then the Brinnon board changed its mind, so the exchange never took place.

New roads and increased accessibility helped to reverse the earlier trend of the establishment of new school districts. According to the Superintendent's General Record, seven districts in the county voted on consolidation in 1916. From the beginning of the move to consolidate, Brinnon wanted to hold on to its schools. Brinnon students had begun attending Quilcene high school in 1918, after the Brinnon high school mysteriously caught fire and burned in the midst of a period of school board-faculty disputes in the community. Brinnon actually began its 50-year fight against consolidation in 1921, when it refused the county superintendent's proposal to consolidate with the other two Hood Canal school districts. By 1922, however, the Brinnon school was in debt, and the school board voted to close it. The county superintendent, though, prohibited closure, because the school was not deeply enough in debt to warrant closure, and because the school board was liable for the teachers' contract.

The structural problems inherent in the separate elementary and high school districts in Quilcene were bound to cause squabbles. The position of principal or head teacher of the Quilcene district was separate from the position of principal in the Union High School. Authority and responsibility were not clearly outlined for the two positions, and internal stresses were becoming intolerable. During this period, one teacher was charged with offenses leveled by a former school board member; the major charge against him was supplying teenagers with alcohol on a trip in his automobile. Although the board found the charges unsubstantiated, the principal was asked to resign "for the good of the school." One of these teenagers is now an elderly, respected citizen of Quilcene and he maintains that the charges were unsubstantiated.

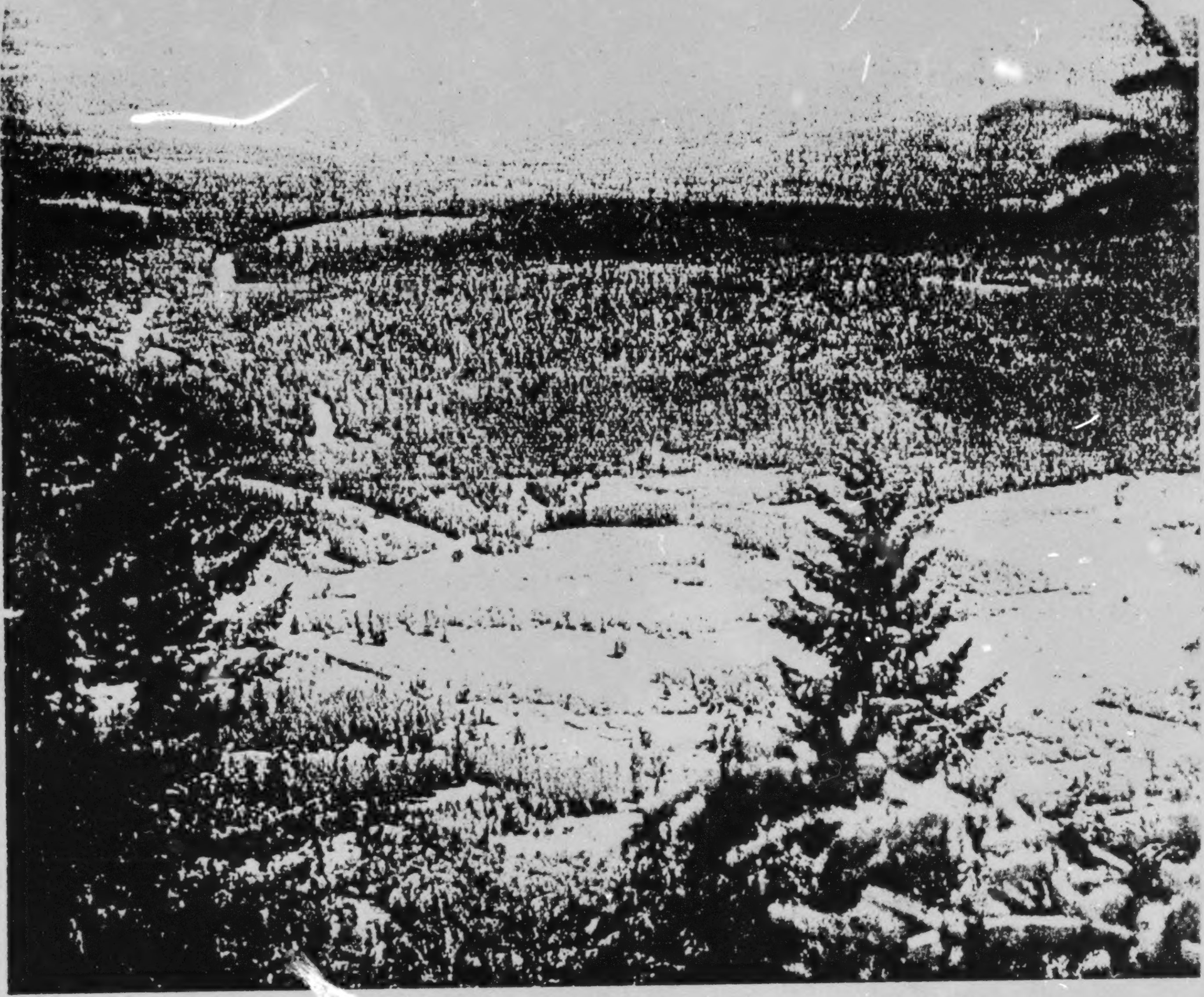

Fig. 5. Quilcene school from Walker Mountain.

## GENERAL DEVELOPMENT THROUGH THE EARLY 1960S

Quilcene moved into the twentieth century just a trifle unsure of itself. Despite the curtailment of the railroad, hope was strong that many people would move into the area and that it would be developed. Opportunity for economic expansion existed in the farming, logging, and mining industries. In addition, communication with the outside world was increased in 1902-3, when James H. Munn of Leland, William Bishop (State Senator from Chimcum) and A. W. Buddress (a Port Townsend lawyer) organized the Inter-Farmer Telephone Company, Inc. Their franchise covered the eastern end of the county south of Port Townsend; they connected with the Citizens Independent Telephone Co. of Port Townsend for long distance calls, and for access to Western Union and the Postal Telegraph Companies.

A number of miners filed claims in the Olympics in the area of Iron Mountain and Mount Townsend, but the one who first explored the area, and who was also able to recruit a lot of men with capital, was Silas Marple of Brinnon. In 1901, he filed a claim on the side of Iron Mountain and by 1903, he had convinced enough wealthy men to found the Tubal Cain Copper and Manganese Mining Company (Taylor, 1972, p. 3). Most of the initial mining equipment was carried on mules over rocky passes and up winding creek bottoms. Untold monies were poured into the Tubal Cain venture. Port Townsend, Quilcene and Brinnon waited breathlessly for two years, then three, then 10, but no fortune came out of Tubal Cain. By 1915, interest had dribbled away and by 1920, the entire mine system was abandoned as a total loss.

As the mining industry failed to expand, logging remained the largest source of employment in Quilcene and Brinnon. Opportunity for employment in logging stimulated an influx of a new ethnic group into the area, the Japanese. By 1918 there were several Japanese families in Leland and Quilcene, and a teacher in Leland remarked that the school seemed to be half Oriental in student population. Most of the Japanese men were loggers who turned out shingle bolts for the mills in Quilcene, though a few were on the Port Townsend Southern Railroad crew. The Japanese seem to have been welcomed in the community.[6]

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[6] Joe Kawamoto, personal communication, May 28, 1973.

p. 886 blank

Most of the logging was done near railroad spurs which ran from the rivers back into the timber area. In 1925-26, K. Smith Logging Company closed down a major spur that had been built up the Dosewallips before the war and opened operations in Quilcene. Although the Duckabush spur also closed down in the late 1920s, by the early 1930s there were still four logging companies in Brinnon. The logs were skidded by mule to a cleared spot called "the incline," and from there were transported by trestles over the roadway.

Quilcene, meanwhile, had undergone a few minor changes. By 1913, Milton F. Satterlee had moved his newspaper to a new building at the end of Linger Longer Road at what is now the boat haven. The paper was called the Megaphone ("Circulation less than a million and a half weekly"); its machinery was driven by a huge waterwheel run off a stream outside the shop. The June 20, 1913 issue of the Megaphone listed a number of clubs and organizations, including the Modern Woodmen of America, Foresters, Masons, Mothers' Club, the Commercial Club, the First Presbyterian Church, and the Friends Church. Evidently, the old Quilcene Literary Club was by this time extinct, or perhaps had merged with the newer Commercial Club. In that year, the Quilcene baseball team played the Port Townsend team with an admission price for men of $.45, ladies free. The Satterlees were probably planning their new Linger Longer Lodge, which was built in 1914. The Beck brothers had two logging camps going, and the Green Shingle Mill Company, located near the Megaphone office south of the railroad depot, employed 20 men in the mill and 30 in the woods, producing 150,000 cedar shake shingles a day. By 1920, frequent flooding and construction of a new road which rerouted tourist traffic had caused the removal of Quilcene from its location south of the Big Quilcene River to its present location on higher ground between the two rivers.

There was very little visible change in Quilcene during the next 50 years. The road through Quilcene was improved and slightly rerouted in 1936 by a CCC project, which had a camp in Quilcene with about 200 men during the 1930s. Social life continued to center around activities similar to those in the past. Dances, for instance, which had been the major means of fund raising and entertainment in the early days of settlement, continued to be put on by local organizations, and even today they play a major role in community life. The occasional log rolling contest was dominated in the

1930s by the Swanson brothers from Brinnon, who were virtually impossible to separate from a log. The now famous Port Townsend Rhododendron Festival was first put on in Quilcene during that period at the instigation of Julian Oen and Bert Kruse. And no history of those middle years would be complete without mention of Old Jack Whiskers, whose occasional appearance in Quilcene with hides to be traded for supplies never failed to thrill local youngsters. He lived alone in a cabin up in the mountains and was reputed to be the finest cougar hunter in the world.[7]

The Depression years brought a minor population boom to Brinnon, as many people tried to escape the grinding poverty of the cities[8] by moving to the country, where the flora, fauna and garden opportunities at least offered survival. Children from newly arrived families swelled the school population. During those years, the mothers of the community got together in large groups and canned fruit and vegetables which had been donated by the Britt truck farm for the school lunch program. Deer killed out of season and by passing autos were also donated to the lunch program.[9] By the 1950s, population growth forced settlement of the Brinnon Flats near the old E. P. Brinnon house; a new school, a new post office, and many new houses were constructed.

The population was also affected by World War II. During the war, 1,500 troops were billeted in the gymnasium and the Forester/Masonic Hall in Quilcene as part of the Western Approaches Defense Program. The Japanese population in particular was affected by the war, although there was very little hostility toward the Japanese in Leland in the tension-filled days following Pearl Harbor. In fact, many local people tried to block their forced evacuation, but without success. After the war, some of these evacuees did not return to the area, but Joe Kawamoto, whose father had been the first employee of the Inter-Farmer Telephone Company in 1903, returned to his farm which had been cared for by a neighbor. He later established a real estate business in the area[10] and also served on the school board for several years.

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[7] Julian and Nellie Oen, personal communication, May 21, 1973.

[8] Walt and Zula Kelly, personal communication, May 30, 1973.

[9] Ibid.

[10] Joe Kawamoto, personal communication, May 28, 1973.

In 1950, Buck Mountain Logging Company moved into Quilcene, bringing a number of families with it. Referring to the hustle and bustle of a busy logging operation, one native son remarked, "Quilcene just wasn't the same after Buck Mountain came to town." The company became the major logging employer in Quilcene through the 1960s.

A 1956 list of businesses and organizations (enumerated in a letter from Janet Pedersen to the Jefferson County Historical Society) in Quilcene included:

Music & Art Studio (defunct)
Movie Theatre (defunct)
Boat Haven
Community Club
Garden Club
Several Lodges
Two Churches
Sunday School
Lumber & Hardware Store
Three Stores (now only two)
Three Restaurants (now only one)
Three Garages (now four)
Two Hotels (now one, plus a motel)
Youth Center
Chain Saw/Outboard Motor Business (combined with one garage)
Kindergarten (now in public school)

Between 1920 and 1970, the majority of people in Quilcene and Brinnon slowly shifted away from farming and logging as a major source of income, and the number of people in "public" employment rose substantially. Old pictures of both Brinnon and Quilcene indicate, as do records and conversations with old-timers, a much higher percentage of farms in the past than presently. In 1913, Earl Oatman wrote in the Megaphone that Quilcene was a town primarily aimed at supporting the local farmers (May Special Edition).[11] Today, only a few farms provide a source of income in either of the two communities. Logging is presently a source of income for about 30% of Quilcene's work force, while about 40% of its work force is in public employment. Public employment includes the U.S. Fish Hatchery (seven persons), the U.S. Forest Service (28), the State Shellfish Laboratory (14), and the School District (42).

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[11] Oatman's comment, however, was made in the midst of a logging slump from which Quilcene emerged shortly thereafter, and it is questionable if the town ever was aimed at supporting farmers more than loggers.

In Brinnon, about 30% of the work force is in public employment and about 25% is in logging.

Quilcene's population is divided into two distinct groups by public employment and other occupations such as shopkeeping, farming, logging, etc. Local residents sometimes feel that public employees are generally newcomers, while the other jobs are held by a core of families, known as old-timers, whose grandparents settled Quilcene, who still have representatives in the town, and who show no inclination to leave. Despite the fact that family groupings are important in Quilcene and that most of the old-time families are interrelated (Eva Taylor was told by one old-timer that a recent set of marriages connected most of the local families in kinship),[12] this is not really the case. Many of the relative newcomers have married into the community and hold positions as shopkeepers, loggers and farmers, while many old-timers are public employees. For instance, out of the 26 businesses in Quilcene (not including small, independent loggers), which account for about 40 jobs, two of the four service stations, one of the two stores, the cafe, and the barber shop are owned by people who are relative newcomers. One of the most influential loggers and one of the most influential farmers are also late-comers. One of the largest businesses in town, an oyster farm, is managed by a newcomer for an absentee owner. Some of these relative newcomers have become very influential in the community and appear to have settled in Quilcene permanently. On the other hand, while some of the public employees have lived in Quilcene for a long time or were born there, public employees generally value movement and exhibit high turnover. Teachers and ministers have especially high turnover rates in Quilcene.

As in the past, a substantial portion of the population in both Quilcene and Brinnon are employed in family businesses. About 35% of Quilcene's work force and about 40% of Brinnon's work force is employed in private businesses. In Brinnon, there are presently 17 family businesses. Several men work at jobs but also have part-time businesses on the side. Others have only a part-time business (e.g., one retired man has a truck garden, another man splits and sells firewood).

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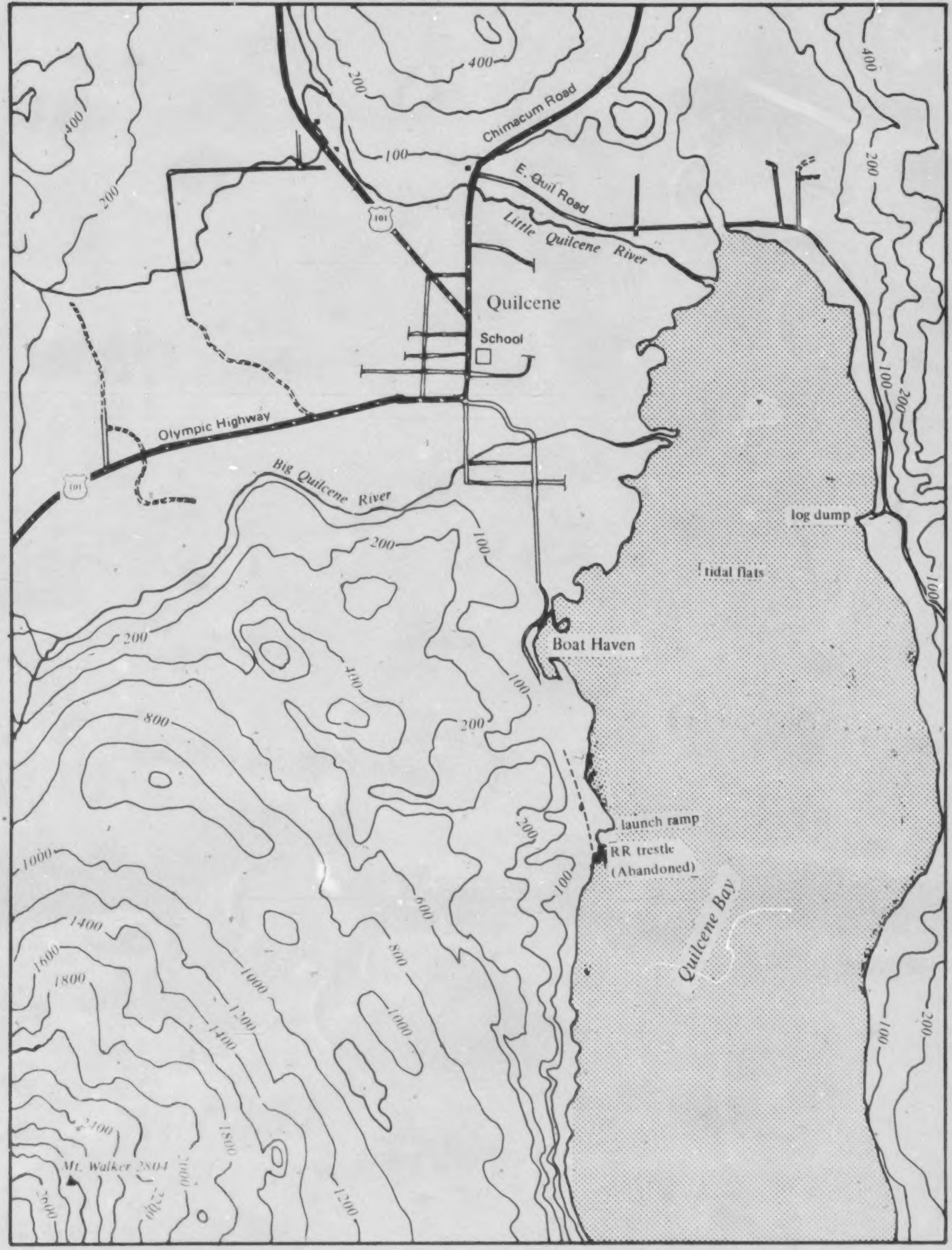
[12] Eva Taylor, personal communication, February 9, 1973.



Chimacum Road
E. Quil Road
Little Quilcene River
101
Quilcene
School
Olympic Highway
101
Big Quilcene River
log dump
tidal flats
Boat Haven
launch ramp
RR trestle
(Abandoned)
Quilcene Bay
Mt. Walker 2804
400
200
100
800
1000
1200
1400
1600
1800
2000
2200
2400
600

Fig.6. Quilcene, 1972.

Many people also augment their incomes by collecting brush (salal, huckleberry) in season to sell to the brush plants in Quilcene. About seven or eight of the small businesses in each town are partially directed at the tourist industry, and only one or two are directed specifically at it. It appears that few, if any, of the small businesses in either community could be considered exceedingly profitable. Most of them seem to get along on what might be considered a reasonable income and an inordinate amount of work.

While there is a constant out-migration in both communities, immigration occurs constantly, too, and there has been a slight increase in the population. In Brinnon, the growth is the result of an influx of retired persons.

The influx of retired people cannot help but have some influence on the values and traditions of the communities, in the long run. But for the present, it seems that the traditional virtues hold sway. Hard work, thrift, helping others who need help, individuality, all seem to hold important places in the value system here. Although these values emerged in the pioneer situation of the early settlers, to some extent, the area still contains elements of the frontier. Helping other people is important, because tomorrow one may well need help oneself. Except for a few retired city-dwellers, there are no specialists, and labor is frequently exchanged. When a washing machine breaks down, for instance, one must depend on a neighbor to fix it, or else make a long and expensive drive to a city for repairs.

Those people who choose to remain in the area enjoy the relatively slow pace of life, and the lack of traffic, smog, and crime (Figure 6). They tend to value privacy and the remoteness of their community (Figure 7). They appreciate the scenic beauty that surrounds them and talk about it at great length. A number of people came here from cities specifically to enjoy the peace and friendliness of a small town. Trips with local residents to Seattle invariably evoke negative comments on the necessity of living so close to other people in a city.

While local residents value their privacy, they also participate in various social activities. There are a number of local clubs and organizations which are fairly active in Quilcene community affairs. Of these, the largest single organization is the VFW, which boasts 75 couples. Next largest is the Order of Eastern Star with 60 couples, followed by the Grange with a membership of 100. According to the Federal Project Director's Notebook, they are, in order of size:

| | |
|---|---|
| VFW | 150 |
| Order of Eastern Star | 120 |
| Quilcene Grange | 100 |
| Masons | 83 |
| Weight Watchers | 40 |
| Bowling (women) | 40 |
| Grandmothers | 30 |
| Lions International | 30 |
| Homemakers (2 groups) | 25 |
| Firemen | 25 |
| Preschool PTA | 21 |
| Garden Club | 20 |
| United Presbyterian Women | 16 |
| Community Club | 15 |
| 4-H | 14 |
| Alcoholics Anonymous | 12 |
| Royal Neighbours | 10 |
| Alanon | 9 |
| Youth Center | 6 |
| Tops | 6 |

Religious services are another form of social gathering. There is one church in Brinnon, sponsored by Village Missions. It is "nondenominational," with fundamentalist leanings. The church has had a full-time pastor since the fall of 1958 (Pioneer Ladies' Aid, p. D), and currently has a very popular pastor and an enthusiastic congregation. The church offers Sunday and Thursday evening services, Ladies' Bible Class, Sunday School, Sunday evening teen gatherings, and various special events throughout the year.

Eight religious preferences are listed in the Federal Project community outline of Quilcene. There are only two churches, however, with memberships of about 50 each. The Presbyterian adult membership is overwhelmingly female, with a proportion of three to one. The Presbyterian Church has replaced Sunday School with a Wednesday School, which draws between 50 and 80 children. The church also has a monthly "circle" for women, in which the women rotate in presenting programs to one another. Adult Bible Study is also offered.

The other church is the Full Gospel Church. It has frequent services throughout the week and operates the Faith Farm, north of Quilcene. The Faith Farm accepts drug users, runaways, and other people having problems of various kinds, and attempts to rehabilitate them to a Fundamentalist Christian way of life. The Church of Latter Day Saints also meets weekly in the VFW Hall.

Other social activities make use of the abundant opportunity for outdoor recreation. One of the area's most spectacular views can be seen on a clear day atop Walker Mountain. There are two local parks in Quilcene with very limited facilities; the two most commonly used parks are right in the heart of Brinnon, and these accommodate thousands of tourists during the summer months. While the tourists benefit the local economy, they also cause a great deal of nuisance to many of the local people. Campers steal firewood supplies and occasionally equipment blocks for bonfires, raid crab and shrimp pots, trespass on private oyster beaches, clog the roads, etc. There is also a boat haven in Quilcene which harbors about 35 boats. Of the 10 commercial boats there, two tugs are used in logging, while the rest are used by shellfisheries; there are no pelagic fishery boats in Quilcene.

Some social services are provided by county and state government. Law enforcement is in the hands of county lawmen and the state-employed game warden. The county provides welfare services; approximately 10% of the residents in the two communities are receiving some form of public assistance.

Other social services are provided by local organizations. The Brinnon Booster Club, with a membership of close to 500 (obviously including a number of people who do not reside in Brinnon), provides many services that a town government would normally perform. It is very active in its support of the fire department, and it purchased the ambulance which is so important in a community of many retired people. Both Quilcene and Brinnon have ambulances and fire departments which are operated on a volunteer basis, although recently, the county has begun to share the financial burden of the fire departments with both towns. The Brinnon Booster Club also supports the local Girl and Boy Scouts of America. Since the nearest health services are in Port Townsend, 26 miles north of Quilcene, the Quilcene Lions' Club has shown some interest in setting up a resident nurse or paramedic facility in Quilcene, at least on a part-time basis. There is, as yet, no hint of what kind of community support there might be for such an endeavor.

There is a town and a county library in Port Townsend and a school library in the main administration building in Quilcene. The latter library was left open from 6:00-9:00 p.m. on Mondays for a few weeks earlier this spring, but was again closed evenings due to a lack of public use. Brinnon's elementary school also has a library.

There is no public water or sewage system in either Quilcene or Brinnon. Nearly every home has its own well and septic tank, although in some instances several homes share a water supply. This has presented a significant problem for prospective builders, since regulations for septic tanks are becoming increasingly difficult to meet. As it now stands, many homes use a polluted water supply in the late spring, when nearby septic tanks spread their effluent in the annual runoff.

The majority of people own their own homes and thus pay the taxes on those homes. Salaries are relatively low in the area, and taxes take a large portion of many incomes. In addition, excess taxes to support school operation and bond maintenance are often levied in both communities. However, 60-65% of the local people raise some kind of garden, and many raise livestock on their own property. When the natural flora and fauna are also exploited, this alleviates the low salary level considerably. However, taxes have increased fourfold over the last five years, and levies are failing everywhere. It is to Quilcene's and Brinnon's credit that levies are still being passed in both communities.

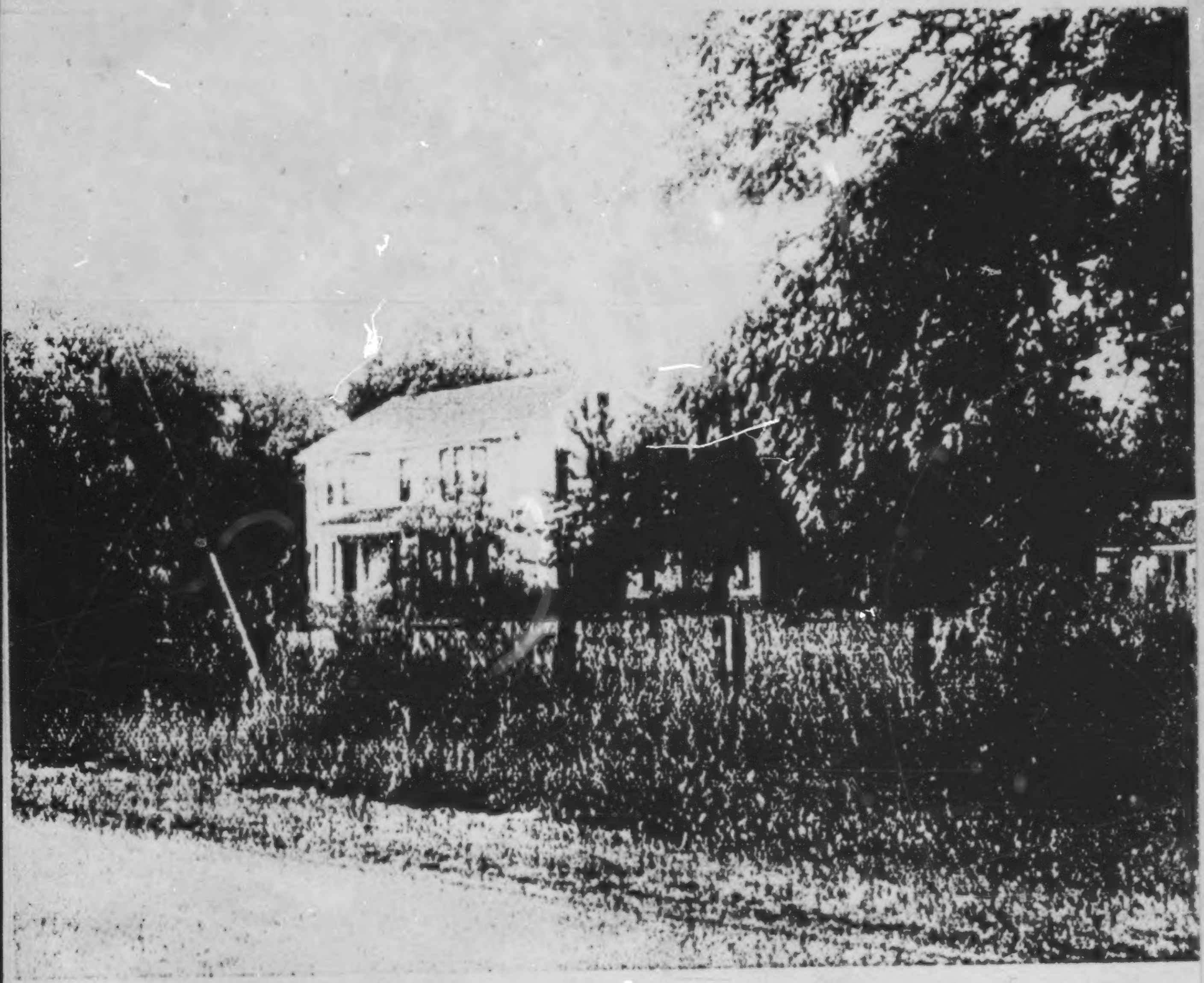


Fig.7. A long standing residence in Quilcene

## THE SCHOOLS TODAY

### Administrative Structure

The State of Washington has a State Board of Education composed of 14 elected members, two from each congressional district. This board, together with the State Superintendent of Public Instruction, is in charge of the public education system. Below the state board, there are 14 Intermediate School Districts (I.S.D.'s). These Intermediate Districts are composed of several of the former county school districts. Jefferson County School District, most of Kitsap County School District, and a part of Mason County School District. These Intermediate School Districts replaced the older county system in 1969. I.S.D. 114, which is the I.S.D. over School Districts No. 45 (Brinnon) and No. 48 (Quilcene), is composed of 16 school districts in all, with 34,028 students. The I.S.D. Superintendent is an appointed, rather than an elected, official. Many people dislike this arrangement, because they feel that it removes the superintendent from control by the population he serves. While each I.S.D. has a board of seven or more members elected from the included districts, communities like Quilcene and Brinnon which constitute such an extreme minority of the constituency have little chance of placing a local member on such a board.

Below the I.S.D.'s there are local school districts with school boards from the immediate communities served.

Local school districts are of three classes:

1. First-Class District--Population in excess of 10,000. There are currently 72 first-class districts. They serve approximately 80% of the total state school population.

2. Second-Class District--Any other district containing an organized town or a population of 300 in a square mile, or maintaining a fully accredited high school. In 1972 there were 196 districts of this category. They serve 19% of the students.

3. Third-Class District--All others. There are now 48 third-class districts...

Districts of the first and second class are governed by five elected school board members, except for Seattle, which has seven. Districts of the third class are governed by boards of three members (Citizen's Handbook for Washington State Finance, p. 4).

p.898-blank

Thus Brinnon, having no high school, is a third-class district, and Quilcene is a second-class district. The Brinnon School District has three people on its board (one member from each of the earlier districts which consolidated to form District No. 46) plus the principal/head teacher. Quilcene has a five-member board which is similarly constituted. In addition, Quilcene has a district superintendent and a high school principal who are engaged completely in administration. There is also a head teacher in the elementary school who has administrative duties in addition to his full-time teaching position. The situation is the same in Brinnon, where the school principal/head teacher is in fact a full-time teacher with administrative responsibilities. In addition, the Brinnon head teacher serves on the school board; in Quilcene, the superintendent does.

School board activities take up a great deal of the members' time in both communities. Because of budgetary constraints, much of this time is volunteered. One board member in Brinnon has described the job as full-time, while another is a retired man who works mainly during the summer. The Clerk of the School Board spends one day a week on school business for which she is paid, but she willingly spends more time without pay.

## Finances

In the 1960s and earlier, both Brinnon and Quilcene were considered to be wealthy school districts because of Federal Forest Funds. These funds were given to districts which contained large portions of federal forest land and provided services to Forest Service personnel, who moved frequently and were unlikely to own land and to therefore pay property taxes to support the school system. While the funding program has been modified recently so that Quilcene no longer benefits as directly from it as in the past, the number of Forest Service personnel in the area has increased, and both Quilcene and Brinnon continue to have annual per pupil expenditures which are above average for school districts of their size in the state. According to figures compiled by I.S.D. 114 in Port Townsend, the per-pupil expenditure including transportation is about $1,200 in Quilcene and $1,100 in Brinnon, while the state average is $870.40 for districts of comparable size.

Brinnon's budgets for the three years 1969-70, 1970-71, and 1971-72 are shown in Table 1. For the last of those years, therefore, Brinnon anticipated expenditures of $59,941.92, to which $4,180.00 had to be added for accrued expenses. This total *disbursement* was expected to be met by revenues of $48,159.00 together with a cash and investment balance of $15,962.92.

## Table 1

## CASH, INVESTMENTS AND REVENUES OF BRINNON SCHOOL DISTRICT

| | (Whole Dollars Only) | |
|---|---|---|
| | Actual 1970-71 | Budget 1971-72 |
| Beginning Cash and Investment Balance | | |
| Cash on Hand, July 1 | | |
| Treasurer's Balance, July 1 | 14,310.39 | 18,331.30 |
| Plus: Investment Balance, July 1 | | |
| Sub-Total--Cash and Investment Balance., July 1 | 14,310.39 | 18,331.30 |
| Less: Warrants Outstanding, July 1 | ( 1,231.05) | ( 2,318.38) |
| Less: Warrants Issued, July 1-20 for previous year | (        ) | (        ) |
| Total Beginning Net Cash and Investment | 13,079.34 | 15,962.92 |
| Revenues | | |
| Local Taxes | 22,301.23 | 20,443.00 |
| County Administered Funds | 3,874.80 | 3,000.00 |
| State Funds | 11,829.92 | 14,016.00 |
| Federal Funds | 10,530.88 | 8,300.00 |
| Local Non-Tax Revenue | 17.24 | |
| Local Reimbursements | 1,136.29 | 1,500.00 |
| Federal Reimbursements | 908.75 | 900.00 |
| Payments from Other Districts | | |
| Transfers In | | |
| Total Revenues | 50,599.11 | 48,159.00 |
| Total Cash, Investments and Revenues | 63,678.45 | 64,121.92 |

Table 2

## DISBURSEMENTS OF BRINNON SCHOOL DISTRICT

| | Actual 1970-71 | Budget 1971-72 |
|---|---|---|
| Expenditures | | |
| Administration | 1,236.51 | 2,352.90 |
| Instruction | 31,798.79 | 35,300.00 |
| Pupil Services | 99.00 | 300.00 |
| Food Services | 3,622.40 | 4,050.00 |
| Pupil Transportation | 2,809.63 | 4,971.00 |
| Operation of Plant | 5,511.29 | 3,515.00 |
| Maintenance of Plant | 1,230.91 | 2,900.00 |
| Community Services | | |
| Payments to Other Districts | 1,407.00 | 1,553.02 |
| Interest Expense | | |
| Total Expenditures | 47,715.53 | 59,941.92 |
| Add or (Deduct) Adjustments | | +4,180.00 |
| Total Disbursements | 47,715.53 | 64,121.92 |
| Ending Net Cash and Investments | 15,962.92 | |

A breakdown of the expenditures listed in Table 2 is given in Table 3.

Table 3

## GENERAL FUND EXPENDITURES OF BRINNON SCHOOL DISTRICT BY OBJECT OF EXPENDITURE

| Object Classifications | Actual 1970-71 | % to Total | Budget 1971-72 | % to Total |
|---|---|---|---|---|
| Salaries and Wages | | | | |
| Certificated | 27,367.50 | 58 | 29,630.00 | 50 |
| Professional and Technical | | | 586.00 | 1 |
| Secretarial, Craft and Others | 7,618.15 | 16 | 8,141.00 | 13-1/2 |
| Employee Benefits | 2,276.51 | 5 | 2,944.00 | 5 |
| Supplies and Materials | 4,665.85 | 10 | 6,350.00 | 10-1/2 |
| Books | 1,307.99 | 2 | 1,500.00 | 2-1/2 |
| Contractual Services | 4,070.53 | 8 | 5,608.02 | 9 |
| Travel | 143.95 | 1/2 | 1,282.90 | 2 |
| Capital Outlay | 264.45 | 1/2 | 3,900.00 | 6-1/2 |
| Total Expenditures | 47,715.53 | 100.0 | 59,941.92 | 100.0 |

The total funds available to the Quilcene School District for the two years 1970-71 and 1971-72 are shown in Table 4. The total disbursements which the school district made in each of those years and what the categories of expenditures were are indicated in Table 5.

**Table 4**

CASH, INVESTMENTS AND REVENUES OF QUILCENE SCHOOL DISTRICT

| | (Whole Dollars Only) | |
|---|---|---|
| | Actual 1970-71 | Actual 1971-72 |
| Beginning Cash and Investment Balance | | |
| Cash on Hand, July 1 | | |
| Treasurer's Balance, July 1 | 10,961.00 | [illegible]3,604.00 |
| Plus: Investment Balance, July 1 | | |
| Sub-Total--Cash and Investment Balance, July 1 | 10,961.00 | 73,604.00 |
| Less: Warrants Outstanding, July 1 | (12,187.00 | 30,706.00) |
| Less: Warrants Issued, July 1-20, previous year | (          ) | (          ) |
| Total Beginning Net Cash and Investments | -1,226.00 | 42,898.00 |
| Revenues | | |
| Local Taxes | 76,225.00 | 102,979.00 |
| County Administered Funds | 33,135.00 | 38,183.00 |
| State Funds | 141,774.00 | 79,795.00 |
| Federal Funds | 80,209.00 | 76,798.00 |
| Local Non-Tax Revenue | 1,138.00 | 942.00 |
| Local Reimbursements | 8,668.00 | 8,275.00 |
| Federal Reimbursements | 3,892.00 | 5,129.00 |
| Payments from Other Districts | | 362.00 |
| Transfers in | | |
| Total Revenues | 345,041.00 | 312,463.00 |
| Total Funds Available | 343,815.00 | 355,361.00 |

Table 5

## DISBURSEMENTS OF QUILCENE SCHOOL DISTRICT

| | Actual 1970-71 | Actual 1971-72 |
|---|---|---|
| Expenditures | | |
| Administration | 25,188.00 | 25,670.00 |
| Instruction | 190,872.00 | 201,548.00 |
| Pupil Services | 684.00 | 708.00 |
| Food Services | 14,098.00 | 14,924.00 |
| Pupil Transportation | 23,131.00 | 28,507.00 |
| Operation of Plant | 26,091.00 | 32,227.00 |
| Maintenance of Plant | 11,331.00 | 13,212.00 |
| Community Services | | |
| Payments to Other Districts | 9,523.00 | 3,517.00 |
| Interest Expense | | |
| Total Expenditures | 300,917.00 | 320,313.00 |
| Add or (Deduct) Adjustments | | 13,810.00 |
| Total Disbursements | 300,917.00 | 334,123.00 |
| Ending Net Cash and Investments | 42,898.00 | 33,987.00 |

A breakdown of the expenditures listed in Table 5 is given in Table 6.

Table 6

## SUMMARY OF GENERAL FUND EXPENDITURES OF QUILCENE SCHOOL DISTRICT BY OBJECT OF EXPENDITURE

| Object Classifications | Actual 1970-71 | % to Total | Actual 1971-72 | % to Total |
|---|---|---|---|---|
| Salaries and Wages | | | | |
| Certificated | 173,452 | 57.6 | 181,476 | 56.7 |
| Professional and Technical | | | | |
| Secretarial, Craft and Others | 46,176 | 15.4 | 45,079 | 14.1 |
| Employee Benefits | 13,873 | 4.6 | 18,035 | 5.6 |
| Supplies and Materials | 19,390 | 6.4 | 28,636 | 8.9 |
| Books | 2,810 | .8 | 3,290 | 1.0 |
| Contractual Services | 31,466 | 10.5 | 28,392 | 8.9 |
| Travel | 2,593 | .9 | 3,877 | 1.2 |
| Capital Outlay | 11,157 | 3.7 | 11,528 | 3.6 |
| Total Expenditures | 300,917 | 100.0 | 320,313 | 100.0 |

## Curriculum, Facilities, and Personnel

Despite their above-average per pupil expenditures, both Quilcene and Brinnon school districts suffer from financial limitations simply because of their small size. In Brinnon, the number of students precludes more than three teachers, which means putting three grades in each class. In the school year 1971-72, there were 3-1/2 full-time equivalent teachers in Brinnon, including a part-time assistant. One teacher had the first three grades, another grades 4, 5, and 6, and the head teacher taught grades 7 and 8. According to the head teacher, this arrangement has certain inherent strengths and weaknesses. Younger students in multiple classrooms often learn along with upper grade children being taught in the same room. At the same time, slower children can profit from re-hearing material covered in the previous grades. With such a low teacher-pupil ratio there is a great deal more individual attention than in larger classrooms, and the teacher knows each child quite well. However, with such a small teaching staff there is not a large range of specialties and abilities to choose from. In Quilcene, there were 18 certified personnel, including a full-time principal and a superintendent, and 14 non-certified staff in 1971-72. Despite Quilcene's larger staff, small enrollment also often forces doubling up elementary grades and constrains the range of courses that can be offered. Both schools are faced with decreasing enrollments in the primary grades (Table 7).

Because of its size, Brinnon was unable to offer a regular sports program or a special reading program in 1971-72. There was, however, a preschool which used the school facilities and operated on donated labor. A normal schedule for the Brinnon school was: English, spelling, (recess), reading, mathematics, (noon), social studies, science, physical education. In the same year, course offerings in Quilcene were as follows:

- In the elementary school there was reading, writing, spelling, arithmetic, language, social studies, physical education, and music. Art was taught in grades 1-3, and science in grades 4-6.
- In the 7th grade, there was art, mathematics, spelling, reading, science, social studies, music, band, physical education, home economics, and shop.
- In the 8th grade, there was language arts, English, mathematics, science, social studies, music, band, physical education, reading/spelling, home economics, and shop.

Table 7

SCHOOL ENROLLMENT IN BRINNON AND QUILCENE SCHOOLS IN 1971-2

| Grade | Total No. of Students in Brinnon | Total No. of Students in Quilcene | Total No. of Students in Both Communities |
|---|---|---|---|
| K | -- | 14 | 14 |
| 1 | 7 | 15 | 22 |
| 2 | 4 | 12 | 16 |
| 3 | 3 | 15 | 18 |
| 4 | 15 | 20 | 35 |
| 5 | 7 | 18 | 25 |
| 6 | 7 | 18 | 25 |
| 7 | 7 | 20 | 27 |
| 8 | 7 | 25 | 32 |
| 9 | -- | 30 | 30 |
| 10 | -- | 36 | 36 |
| 11 | -- | 24 | 24 |
| 12 | -- | 33 | 33 |
| | 57 | 280 | 337 |

- In the high school the subjects were typing I and II, general science, algebra I and II, home economics, physical education, Washington state history, driver's education, shop, Spanish I and II, drama, chorus, small motors, arts and crafts, core social studies, core English, band, world history, general business, mechanics, contemporary history, biology, chemistry, geometry, diversified occupations, family life, bookkeeping, journalism, general mathematics, contemporary problems and advanced mathematics.

In addition to the usual small high school curriculum, Quilcene instituted a two-part core class in 1971-2. There was a basic core class in grades 9-12 geared to students with low motivation. This class met for two periods each day, and students received one credit of social studies and one English credit for the class according to the grade they were in. There was no outside work in the class, and various innovative attempts were made to interest the students in academic subjects; e.g., using lower level books, using card games to stimulate mathematics interest. Accelerated or college-bound core was available for the more highly motivated students in grades 10-12. These students also received credit in social studies and one credit in English for the class. Accelerated core met one period per day plus one evening per week at the home of the teachers (a husband/wife team) in charge of the class. Students were assigned one paper and one novel per week in addition to regular classroom work.

Quilcene also offered vocational education. The vocational education program was approved in the fall of 1971, with a district budget of $6,000. The new diversified occupations class, instituted in the school year 1971-72, was a class in which students, as part of their regular curriculum, worked in local businesses during a part of their regular school day. This was designed to give occupational meaning to the academic subjects covered in regular classroom work.

## The Students

In his letter of application, Dr. Elmer Adams pointed out that, aside from basic core, the Quilcene program was essentially a college preparatory one. Other students were kept in school as long as possible, and the superintendent and principal tried to gear the existing program as much as possible to the students and community. The drop-out rate during the senior year has recently been approximately 20-22%. While there does appear to be a fairly clear dichotomy between students who participate heavily in school government, sports, etc., and those students who do not participate in anything, there does not seem to be a correlation between these two student groups and parental economic bases. Recently, there has been considerable concern over drug abuse in the community, and a number of young people have been arrested. Most students who remain in Quilcene after finishing or leaving school go into logging, oystering, or homemaking. The percentage of students who did not remain in Quilcene after graduation is shown in Table 8.

Table 8

POST-HIGH SCHOOL OUT-MIGRATION IN QUILCENE, 1965-1972

| Year | No. Graduated | No. in Quilcene | % out-migration |
|---|---|---|---|
| 1965 | 20 | 5 | 75% |
| 1966 | 30 | 8 | 74% |
| 1967 | 22 | 10 | 55% |
| 1968 | 20 | 10 | 50% |
| 1969 | 21 | 7 | 66% |
| 1970 | 25 | 11 | 56% |
| 1971 | 19 | 9 | 53% |
| 1972 | 24 | 19 | 21% |

Source: Federal Project Director's Notebook

## The Communities and the Schools

Community attitudes toward the schools are strikingly different between Quilcene and Brinnon. In Quilcene, the school represents a hub around which considerable activity occurs, and is the location of the largest, regularly occuring gathering of people in the village. Situated in the precise center of town, the school and its students are highly visible; the most visible behavior of a small group of students can be taken as the behavior of the student body as a whole. Over 80 years of this "goldfish bowl" existence has instilled a very defensive atmosphere within the school, since controversy in the town tends to revolve around the school and school personnel. Periodically, the Quilcene community boils over in an agony of frustration, striking out at any convenient target--and that usually means the school. The "window on 101" is frequently subjected to brickbats.

Community attitudes toward Quilcene school have been marked by controversy. The core program, especially accelerated core, was generally approved in the community, but the open campus, a program initiated by Superintendent Adams in 1971-72 in which students could leave the campus during their noon hour, caused considerable concern on the part of some residents. They believed that students should be restricted to the campus all day, that the open campus was a way for students to "go off somewhere to misbehave." A similar attitude was expressed toward science classes in which students moved about the community while doing course work for special projects.

In general, Quilcene residents differ considerably about what constitutes a good education, how it should be administered, and how it should be paid for. Some feel that any enrichment of the school program is desirable and that the amount of money which is available to the school is too small to offer a wide range of courses. Other residents think that property taxes are already too high. They feel that there is no need for extra courses and that all children need is to learn to read and write and the rest of it is "tomfoolery." Some of these feel that additional programs are actually harmful to education in that they are disruptive of good discipline, which is paramount. They feel that if there is good discipline, the children are learning, and that presently discipline is lax. On the other hand, some residents think that discipline is already too harsh, and that the key to a good education is to get the students interested in what they are doing. Some people in the community think that the school system is salvageable only if the majority of older faculty are fired and young, dynamic ones are hired. While many people think that a good education is a necessity, many also think that the Quilcene-

Brinnon school system is not good enough and that the children should be sent to Port Townsend or Chimacum, "where they can get a decent education." Some people believe that the schools are turning out 100% illiterates. This diversity of opinion has recently been reflected in two facts. First, in the early 1960s, in an effort to decrease taxes and improve the availability of a wider range of courses, consolidation was proposed with Chimicum; Quilcene residents rejected the plan. Second, in order to raise funds for the school budget, Quilcene has had annual special levies in addition to property taxes; often the levies must be voted on twice before they pass.

Some community members have noted a correspondence between positive feelings about the Quilcene school and the success of its sports team. Others have noted that residents feel more positive about the school system when a new superintendent takes office. In general though, most Quilcene and Brinnon residents recognize that a shortage of funds and students have created a shortage of curriculum offerings in Quilcene's schools. When the Office of the State Superintendent of Education was requested to evaluate the Quilcene school system in February of 1972, it recommended an ungraded elementary school, and environmental education program, and a permanent citizen's committee to advise the school system.

Teachers and staff have been concerned over the lack of communication between administration and faculty, school and community. Since the PTA was disbanded in the early 1970s, there has been no formal communication between the Quilcene school system and its community, except when levies are voted on. The grapevine--coffee klatches, neighbor visits, and the telephone--is Quilcene's channel of communication. The vast majority of Quilcene residents learn of events which occur at public meetings, which draw only 30-35 people, second- or third-hand. Women outnumber men at these meetings, and they are the most vocal influence in the school system. In only two or three very noticeable instances do men participate in these public discussions, and these usually are men who have a strong ideological stake in the proceedings.

In contrast, Brinnon residents feel positive about their school, and it is well supported by the community. Brinnon has a Parent-Teacher Organization (not affiliated with the National Association of Parents and Teachers) which endeavors to help the school in whatever way seems appropriate; the preschool program, for instance, was supported by the PTO. Brinnon residents are proud that there has always been a hot lunch program in the school. Compared to Quilcene, Brinnon has fewer special levies, and when they do occur, they are passed more easily. In general, partly because Brinnon is smaller, there has been less hostility and factionalism in school issues in Brinon than in Quilcene. When Brinnon residents find fault with the schools, it is usually directed at Quilcene schools, rather than at their own.

Another effect of Brinnon's small size is that Brinnon residents consider their school to be essential to their identity as a community. Brinnon residents are afraid that Quilcene will gobble up their school, and one of their major problems has been how to hold on to it. The state and county governmental structures have been passing legislation and recreating formulae in a manner that is increasingly in favor of consolidation. Brinnon residents prefer their school to that of Quilcene, and don't want the elementary children to be bussed 25 miles daily over Mt. Walker, which frequently ices over in the winter. They feel that transporting the high school students over Mt. Walker already takes a large portion of the school budget. In addition, they are dissatisfied with the education that their high school students are receiving at Quilcene, and hesitate to give up the control which they have over their children's elementary education.

## The Experimental Schools Program

When Superintendent Adams applied for the Experimental Schools program, he also noted some weaknesses of the school system. According to his letter of application, one major problem was that he felt that teachers were stagnating due to their isolation and lack of mobility. He pointed out that the teachers' lack of mobility resulted from state laws concerning teacher salary scales which force the hiring institution to pay on the basis of the teacher's experience. Thus, older teachers cannot find new jobs when younger ones can be hired for much less. Despite their lack of mobility, staff turnover was high. The students also suffered because of the geographic isolation of the area, and had little experience outside the school district. The strengths of the Quilcene school system were the core programs, sports, extra-curricular activities, and community support of special levies.

Superintendent Adams played the key leadership role in the application to the Experimental Schools program and was the major force in getting the idea accepted by both the Brinnon and Quilcene school boards and by the faculty. In March of 1972, he received the notice of the Experimental Schools grant that would be available to small schools, and spent his spring vacation writing his response to the notice. He included Brinnon in the application, since Brinnon students attended Quilcene High School. He did not communicate with the community or the school board about the possibility of receiving the ES grant for quite a while because he thought it highly unlikely that the application would be accepted. However, toward the end of May, three OE staff members, Barbara Rose, Russ Mullins, and Cynthia Parsons, made a site visit to the Quilcene area. In early June, Superintendent Adams therefore advised the Quilcene school board that it would be worthwhile to discuss the matter with the Brinnon school board, since they were in the final considerations for the ES grants.

In the beginning, both the teachers and the school board were leery of the federal project. They disliked federal intervention in the school system and felt that it would probably be a lot of work for little return. Brinnon, especially, remained skeptical for some time. Brinnon residents felt that the requirement that Brinnon be involved in the project because it was a feeder school to Quilcene high school was just another way to get the Brinnon district consolidated with Quilcene. On June 29, Adams received a telegram notifying the district of the award (Federal Project Director's Notebook).

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## Chapter XI

# A Social and Educational History of School District No. 2, Carbon County, Wyoming

by

Donald A. Messerschmidt
with the assistance of
Marilyn C. Richen

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*Rawlins Daily Times*, Rawlins, Wyoming: Figs. 23, 24.

H. W. Thompson: Fig. 2.

Author: Figs. 5, 19, 20, 26, 27, 34, 35.

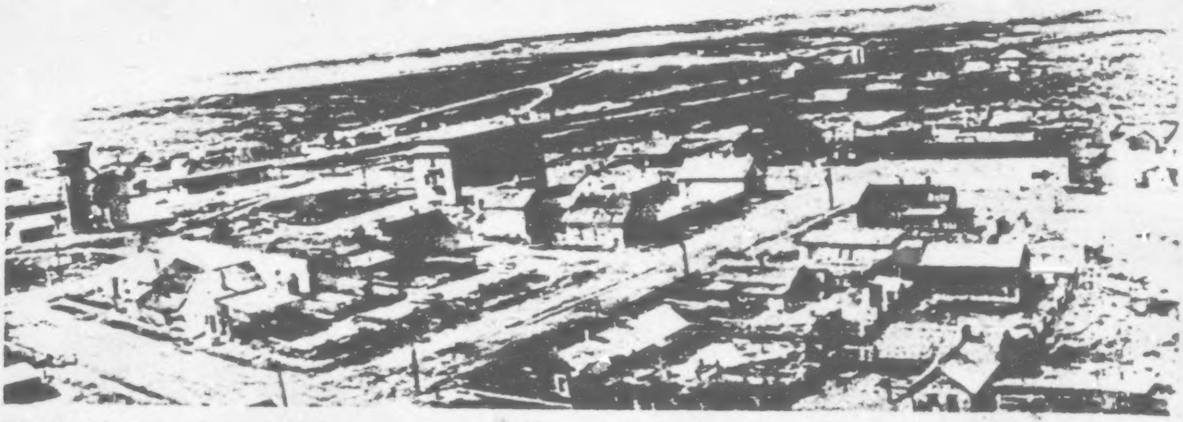

Fig.1. Medicine Bow, 1919.

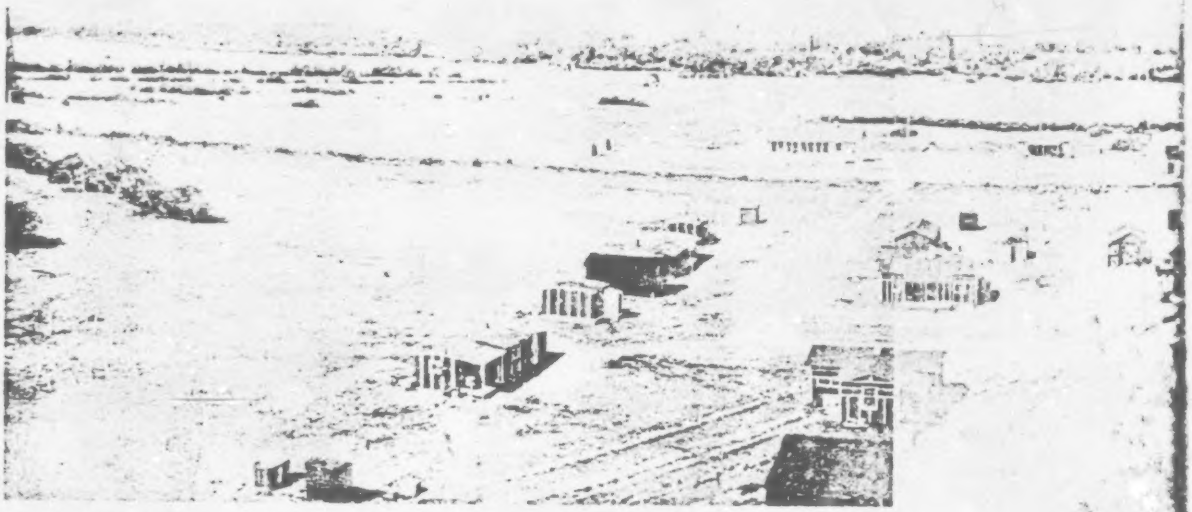

Fig.2. McFadden, 1922.

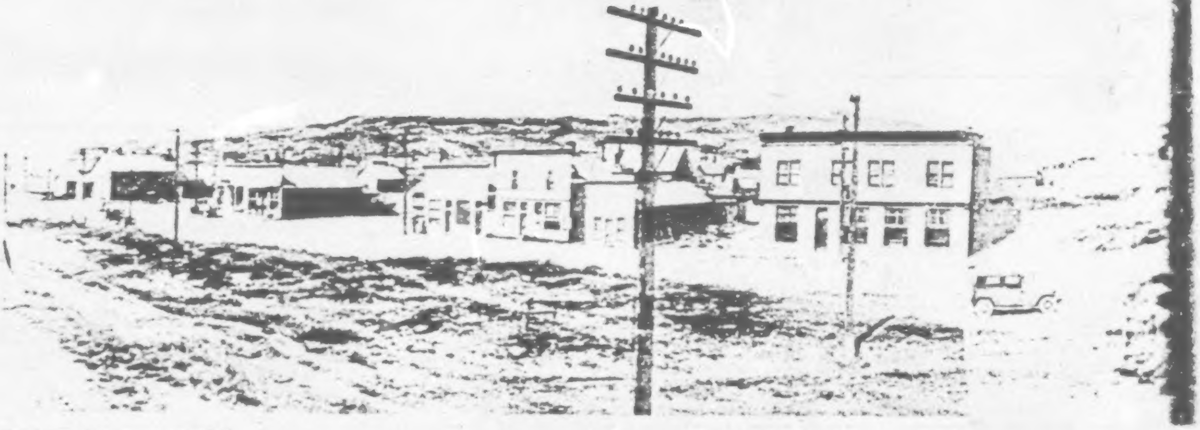

Fig.3. Hanna, 1924.

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# A Social and Educational History of
# Carbon County, Wyoming

Area: 4,300 square miles. Population (1970): 4,138. Elevation is from 12,000 feet to 6,000 feet. The School District is located in the eastern half of Carbon County in southern Wyoming between latitudes 41° and 42°26' North and longitudes 106°04' and 107°07' West. The district was settled in the 1860s and includes the towns of Encampment, Riverside, Saratoga, Elk Mountain, Hanna, Elmo, Medicine Bow, McFadden, and Shirley Basin. Casper is about 130 miles north, Laramie 80 miles east and Denver 200 miles south from the major communities of the district.

## PRELUDE: THE VIEW FROM CARBON COUNTY

Timbered mountain slopes, open range, and high prairie provide the scenic backdrops for life and times in Carbon County. The mountains south of Elk Mountain town, east of Saratoga, and around Encampment are picturesque and attractive to the motoring summer tourist and to the winter sportsman. The drive over Wyoming-130 between Laramie and Carbon County across the Snowy Range is popular in the summer for its views of alpine meadows, lakes, and craggy peaks. Near the pass, at 10,600 feet, both lateral and terminal glacial moraine form many lakes of great scenic and recreational value. In winter, when the road is closed, skis and snowmobiles are popular modes of penetrating the white wilderness of these forested mountains.

The high prairie prevails over much of the rest of the district, broken by frequent hogback ridges, or outcropping edges of tilted strata. The hogbacks look, as someone remarked, "like great sea waves" frozen in their forward thrust. Deep within their strata are the secret bones of prehistoric life which once roamed this land. The prairie panorama spreads west and north from Saratoga, and around Hanna, Medicine Bow, and Shirley Basin.

"Open Range" signs warn the motor traveler of cattle on the road ahead. In a swirl of dust in some draw or barren hillside, the cowboys can be seen trailing cattle toward the home ranch. The smell of trail dust and of sage, particularly after a spring rain, are the odors of life on the range. And on a butte, a sheepherder's wagon sits starkly against the evening sky, smoke curling from a tin chimney, surrounded by a sea of baaing woolies.

A four-lane freeway (Interstate 80) bisects this landscape, crossing the county from east to west, but not much of the aura of the

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countryside nor the smells, tastes, or feel of the land can be had from behind the wheel. It takes a casual stroll down a back country road past the picturesque ranches or through the fields of sage and green grass or along the river to really appreciate the austere beauty of this part of Wyoming's Carbon County. This is the cowman's and the sheepman's country--wild, remote, with wide open spaces and open range and blue skies and clear vistas.

> Take time for far horizons, stretch the eye
> For tranquil largeness, prodigal, remote;
> Measure by sky and distant slanted showers,
> Cool shadows languid on the buttes, slow hawks,
> The small occasional flash of antelope rumps;
> A distant, drifting speck, a man on horse,
> Threading the nameless rims and naked knolls
> On silent hoofs, soundless upon a bluff,
> Ancestral unit, mounted, isolate,
> Like something lost in ways half mythical.
>
> More present man, knotted for speed, peering
> Above his wheel, shuttles across this void
> A gadget on a narrow belt of oil.
> All earth's potential for disaster swarms
> About his car antenna, frets his ear,
> Compels his sour concern. Nations are gasping,
> Politicos connive and panic swells;
> False truces, treachery, fear and hunger hover;
> A demographic spawning mocks all measures;
> Conferences and atoms run amuck.
>
> What of that horseman lost in pathless grass,
> Moving in silence, microscopic, lone,
> Passing beyond, unnamed, casual in space?
> Does he reflect: This older way is best;
> The slow, firm earth, the rims, the grassy hollows?
> And I, here unmolested, taste my days,
> With time to pace the rhythm of the skies,
> And sun, and elemental vagrant winds?
>
> More likely, jogging on, not wasting words,
> He hides a hard attachment and a bent
> For elbow room and space. Crooking his knee
> About the saddle horn, he shifts his weight,
> Sways lightly on, considers food and drouth,
> And where to bed, and where his cattle graze.
>
> Wilson Clough, Antelope Creek*

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*Quoted by permission of the author, Wilson Clough, from Brief Oasis (Denver: Swallow, 1954), p. 56.

# BASIC GEOGRAPHY, GEOLOGY AND ECOLOGY

## Introduction

Carbon County School District No. 2 lies in the eastern half of Carbon County in southern Wyoming, between latitudes 41° and 42°26' North, and longitudes 106°04' and 107°07' West. The school district encompasses an area of approximately 4,300 square miles, slightly larger than half of the county (see Fig. 1).[1] This area is approximately equal to that of the state of Connecticut. In elevation, the district descends from over 12,000 feet in the Snowy Range of the Medicine Bow Mountains in the southwest to 6,000 feet along the North Platte River at Pathfinder Dam in the northwest. The district is largely arid; over 80% of it is grazing land[2] primarily under U.S. Bureau of Land Management and U.S. Forest Service jurisdiction.

Carbon County is a westward extension of the northern Great Plains in both geographic and cultural terms. In prehistoric times, it was frequented by small bands of aboriginal Americans in search of the mammoth and later the bison. The gentle slopes across the Continental Divide provided relatively easy access for migrant groups passing between the Great Basin at the west and the Great Plains at the east. But the contingencies of primitive existence and the harsh environmental conditions of the region apparently precluded permanent human settlement until the coming of the European and American settlers (Mulloy, 1958).

Since the early 1800s, trappers, traders, and explorers from the eastern United States visited the region, followed in mid-century by emigrants passing through on their way west to Utah, Oregon, and California Territories. The earliest settlements were along the

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[1] The entire county covers 7,905 square miles. School District No. 1, encompassing the western portion of the county, covers approximately 3,600 square miles. Partly because of the erratic nature of the school district boundaries, precise area calculations are difficult.

[2] It has been calculated that 84% of the entire county is grazing land (Carbon County-Rawlins Planning Commission 1971, p. 1). School District No. 2 has substantially the same geography and land use pattern as the county as a whole.

Cherokee and Overland Trails which cross the region from east to west. One of the earliest settlements, Riverside (formerly Doggett), grew up at the site of annual fur trading rendezvous between Indians and the traders at the confluence of the Encampment and the North Platte Rivers. Numerous wayside stations and military outposts were built for the convenience and safety of early overland travelers, settlements like Arlington (formerly Rock Dale) and Fort Halleck.

With the coming of the Union Pacific's transcontinental railroad through Carbon County in 1868, a number of other settlements developed. Both Medicine Bow and Rawlins grew up along the tracks and prospered. Others, like the famous end-of-the-tracks boom towns of Brownsville and Benton (at the North Platte crossing), flourished wildly for a few months, then disappeared as the railroad crews moved westward. Fort Fred Steele, a few miles west of the present school district line, was built to protect the Platte River railroad bridge. It lasted only a few years longer than the boom towns, until fear of Indians diminished in the 1870s. It is now the site of an interstate highway campground.

One reason for routing the railroad through this part of Wyoming was the local abundance of coal for fuel. Carbon and Dana, now ghost towns, and later the more permanent Hanna and Elmo grew up as mining communities.

The Elk Mountain region, on the upper Medicine Bow River, was settled from a combination of needs. Ties and cordwood for fuel for the railroad were cut in the nearby forest and floated down river. Fifteen miles north of Elk Mountain, and southeast of the present site of Hanna, the early day town of Percy was established on the railroad as a timber loading station. The natural forage for range animals attracted the pioneer cattle ranchers to this area.

The era of the cattlemen in the 1870s and 1880s was a major impetus in the establishment and growth of Saratoga (formerly Warm Springs) on the banks of the North Platte River. Similarly, the flourishing cattle and sheep industry, combined with the railroad, spurred the successful growth and importance of Medicine Bow town. Medicine Bow gained national fame as the setting for Owen Wister's classic Western novel, The Virginian (1902). Gradually, the more remote rural areas of the district were opened by pioneer settlers. They included the remote Leo Section and Difficulty

Creek region north of Hanna, the Pass Creek region north of Saratoga, Brush Creek northeast of Encampment, Rock Creek near McFadden, and many others.

At the turn of the century, gold, copper, and other minerals attracted prospectors and wealthy mining interests to the Sierra Madre Range at the south, on the Continental Divide. There, the town of Encampment (formerly Grand Encampment) and outlying mining hamlets boomed overnight. A spur of the Union Pacific Railroad was built south from Walcott Junction to accommodate the mines and the ranches of that region.

The discovery of oil in 1916 led to the founding of McFadden east of Elk Mountain, and later, in the 1950s, the discovery of uranium heralded the most recent new settlement in the school district, the trailer town of Shirley Basin in the extreme northeast of the county.

Today there are nine towns within School District No. 2. They are, from south to north, by name (and 1970 population):[3] Encampment (321), Riverside (45), Saratoga (1,181), Elk Mountain (127), Hanna (460), Elmo (53), Medicine Bow (455), McFadden (59), and Shirley Basin (310). The total town population in 1970 was 3,011, and the rural population was 1,127, giving the school district a total population of 4,138 persons, or roughly one person per square mile. Seventy-three percent of the population live in towns, while approximately 27 percent are rural.

Carbon County's largest city is Rawlins (7,855 pop.), the county seat. Rawlins is a 20-mile drive west of Walcott Junction (near the school district's western boundary) on Interstate 80; it is a stop on the Union Pacific Railroad and is an Amtrak station. Forty-six miles north of the district boundary is Casper (39,361 pop.) in Natrona County. Casper is Wyoming's second largest city. Eighty miles east of the school district center on Interstate 80 is Laramie (23,143 pop.) in Albany County. Cheyenne (40,914 pop.), the state capital and the largest city in Wyoming, is 50 miles east of Laramie. Denver, Colorado (514,678 pop.), the largest city in the Rocky Mountain region, is over 200 miles south of the center of the school district.

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[3] With two exceptions, town population figures are taken from the U.S. Census (U.S. Bureau of the Census, 1970). Shirley Basin and McFadden are unincorporated mining company towns. They were enumerated in the official census with the rural population of the county. Their populations as towns are the conservative estimates of expert informants.

The area comprising Carbon County went through a long period of transition before attaining its identity as a part of the state of Wyoming. Prior to the organization of the Territory of Wyoming in 1868, parts of the county were included in the Louisiana Purchase (1803), the Texas Annexation (1845), and the Mexican Cession (1848). Following these three acquisitions by the U.S. Government, parts of the county fell under the jurisdictions of the District of Louisiana, the Territory of Louisiana, the Territory of Missouri, Unorganized Country, Indian Country, the State of Texas, and Utah Territory. From 1848 to 1863, all of Carbon County was included in the Territory of Nebraska, then in Idaho Territory (1863-1864), and finally in Dakota Territory (1864-1868). In 1868, it was incorporated into the new Territory of Wyoming as "Carbon County" (Barnhart, 1969, pp. 1-12).

> Furthermore, much of Carbon County was part of the Republic of Texas, in Santa Fe County, Texas. It was, thereby, the first part of Wyoming to fall within the boundaries of a State. Texas was a slavery state at the time, while the rest of what was to become Wyoming was free territory (Armstrong, 1971, p. 301).

Carbon County was formally established as one of five political subdivisions of the new Territory of Wyoming on December 16, 1868. Earlier that year, by the Organic Act of July 25, 1868, Wyoming Territory itself was established. It became a state in 1890.

At first, Carbon County stretched the vertical length of the entire territory, from Montana to Colorado, between latitudes 106°04' and 107°30' West. It was reduced by the establishment of Johnson County in 1875, Natrona County in 1888, and later by the formation of Sheridan, Big Horn, and Washakie Counties. It was finally fixed to its present boundaries in 1924. Its name was suggested from its vast deposits of carbonates, chiefly coal (Barnhart, 1969, pp. 1-12; Urbanek, 1967, p. 38).

During the early years, Carbon County had 35 established school districts. By 1935, they had been reduced to 26 elementary districts and two high school districts (Knudson, 1937). By a process of consolidation they were further reduced to seven districts by 1972, five in the eastern portion of the county, and the remaining two in the west. In January, 1972, the State Board of Education directed the consolidation of all seven districts into two new school districts, No. 1 in the west and No. 2 in the east. Incorporated into the new School District No. 2 were old districts No. 4 at Hanna and Elk Mountain, No. 6 at Medicine Bow and Shirley Basin, No. 9 at Saratoga, No. 18 at Encampment, and No. 24 at McFadden. School District No. 1 is comprised of old districts No. 3 at Rawlins and Lamont, and No. 1 at Baggs, plus part of the former Bairoil School District in neighboring Sweetwater County.

## The Lay of the Land

The North Platte-Medicine Bow River systems and three mountain ranges dominate the landscape of School District No. 2. The North Platte River rises in the Colorado Rockies and flows northward out of North Park, Colorado, then into Wyoming across the southern portion of the school district. A major tributary is the Encampment River at the south. Some other tributaries are Big Creek, Beaver Creek, Cow Creek, Spring Creek, Jack Creek, and Sage Creek at the west, draining the eastern slopes of the Continental Divide. East bank tributaries include Douglas Creek, French Creek, Brush Creek, Cedar Creek, Pass Creek, and, in the north, the larger Medicine Bow River. The Platte flows northward across the county into Natrone County before bending eastward on its long slow journey toward a rendezvous with the Missouri.

The Continental Divide cuts across a corner of the school district along the rim of the Sierra Madre Mountains at the southwest. The highest point there is Bridger Peak at 11,007 feet. Encampment town is 14 miles east of the peak, at 7,323 feet elevation. East of the North Platte rise the Medicine Bow Mountains. The highest of these are Medicine Bow Peak (12,013 feet) in what is called the Snowy Range. Elk Mountain Peak (11,156 feet) is central to the school district and is a prominent Wyoming landmark. Between these peaks rise three others which can be seen from Saratoga and Encampment: Kennaday Peak (or "Old Baldy," 10,810 feet), and Pennock and Coad Mountains. The Medicine Bow Mountains are a northern extension of the Front Range of Colorado.

South and east of Elk Mountain lies the vast watershed of the Medicine Bow River. This river flows north out of the Medicine Bow Mountains past Elk Mountain town, then turns westward across the northern portion of the school district to converge with the North Platte River at Seminoe Reservoir, northwest of Hanna. Rock Creek, which drains the

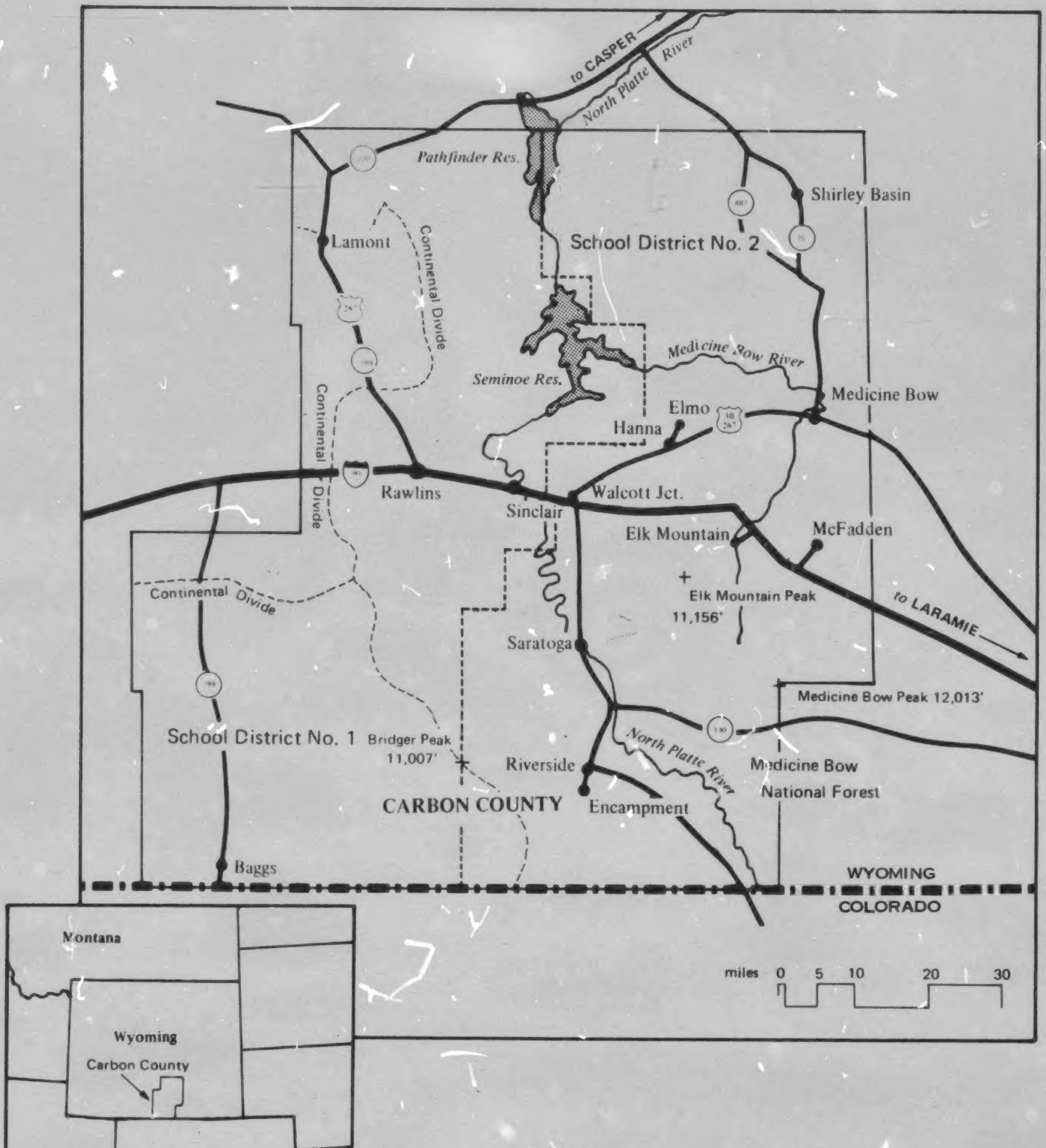
to CASPER
North Platte River
Pathfinder Res.
Shirley Basin
Lamont
School District No. 2
Continental Divide
Seminoe Res.
Medicine Bow River
Medicine Bow
Elmo
Hanna
Rawlins
Walcott Jct.
Sinclair
Elk Mountain
McFadden
Continental Divide
Elk Mountain Peak
11,156'
to LARAMIE
Saratoga
Medicine Bow Peak 12,013'
School District No. 1
Bridger Peak
11,007'
Riverside
North Platte River
Medicine Bow
National Forest
CARBON COUNTY
Encampment
Baggs
WYOMING
COLORADO
miles 0 5 10 20 30
Montana
Wyoming
Carbon County
Colorado

Fig.4. Map of Carbon County.

northeast side of the mountains, converges with the Medicine Bow River a few miles east of the town of Medicine Bow. The Little Medicine Bow River, a second tributary, drains the expansive Shirley Rim region at the northeast. Other smaller tributaries are Muddy, Troublesome, and Difficulty Creeks, which recall conditions which the early pioneers met in crossing them. They rise in the remote Freezeout and Shirley Mountains at the north of the school district. The highest point there is 9,151 feet.

## Ecological Overview

Six ecologic zones have been delineated for Wyoming: river bottom, desert and basin, grassland, foothills scrub, timbered mountain slopes, and alpine (C. L. Porter in Larson, 1965, p. 3). Carbon County has them all. In considering man's historic and economic exploitation of these zones, it is convenient to combine them into three units for discussion.

The river bottom and grassland zones form the primary unit of agricultural exploitation in the school district, although in season livestock grazing extends up through the foothills and forest to the alpine zone. In this arid region, the snowpack in the mountains is extremely important for spring runoff and for the irrigation of crops. Crops include dry land wheat and irrigated tame and wild hay in the valleys. Alfalfa has recently been introduced on land where water is in short supply. These crops supply feed for livestock during the winters, while sage brush range and forest lands supply most of the grass of summer forage (Wolfard, et al., 1967).

Irrigation water comes from the rivers and their tributaries, but is in short supply during July and August. Some wells have been dug, although they are not practical. In terms of agricultural land use, there have been some new conservation efforts which include the improvement of meadows by leveling, the introduction of new strains of grasses for hay, sagebrush control, and improved irrigation methods (Wolfard, et al., 1967; U.S. Department of Agriculture, Soil Conservation Service, 1971).

Soils in the agricultural zones consist mostly of loams, in combination with deep silty clay, gravel, and sand. In upland locations, the soils are shallower and are underlaid by sandstone, shale, and slate or mixed with gneiss, schist, and granite outcroppings (Wolfard, et al., 1967).

Cattle ranching for beef and sheepherding for wool and feeder production are the main livestock enterprises. Ranches in the southern part of the district are primarily cattle ranches, while large sheep operations are more prevalent in the central and northern parts of the school district and to the west in School District No. 1. At one time, Carbon County was widely known as a major wool production region, but production has dropped since the industry peaked in the early 1900s.

In recent years, many small cattle and sheep ranches, which date to pioneer days, have given away to fewer and larger operations, and there has been a significant change toward more absentee ownership. In some instances, consolidation of small ranches into larger units has been the only way of maintaining the viability of ranching given rising inflation, low market prices, increased specialization of production, and a reported increase in predation (notably by coyotes on sheep).

The desert and basin zones form a second exploitation unit rich in natural resources. The basins are exciting to the geologist, even "profound" in the words of one (Blackstone, 1971). Some of the foundation deposits beneath them date to 500 million years. Scenically, the basins are not as satisfying, being "long, rather monotonous vistas of low buttes and mesas and sparse vegetation [which] may seem like a lost world" (ibid.). In terms of economics, however, the raw materials found in these lands are very important:

> Along the basin margins the sedimentary strata often crop out in hogbacks, exposing limestone, gypsum, bentonite, phosphate rock and building stones. Farther out in the basin at the surface one finds some of the great coal fields of Wyoming and its uranium deposits. The rock units that extend under the basin at depth act as reservoirs for oil and gas accumulation...and artesian water conditions prevail in all basins (Blackstone, 1971, pp. 13-14).

Much of southern Wyoming falls within the greater Wyoming Basin, encompassing basins of lesser dimension such as the Red Desert or Great Divide Basin south of Rawlins, extending from the edge of the county west into neighboring Sweetwater County. Within Carbon County School District No. 2 there are two basins of great importance: Hanna Basin, noted for its rich coal deposits, and Shirley Basin, for its uranium. Natural gas and oil are also extracted from the Hanna Basin, near Medicine

Bow and McFadden, and near Sinclair and Rawlins (in School District No. 1).

Cretaceous deposits of another sort also exist--dinosaur bones. A few miles east of Medicine Bow and extending across the Carbon County line into Albany County are the famous Como Bluffs, a "dinosaur graveyard." Great reptilian animal bones were first discovered there in the 1870s. The skeletal hulks from Como Bluffs now dominate the halls of the nation's major natural museums, where they astonish tourists much as they once startled the naturalists who first unearthed them. Along with the dinosaurs were the remains of early mammals, primitive marsupials, and insectivores. A variety of other animal and fish remains dating from more recent periods of prehistory have also been unearthed. In sites dating to the Pleistocene or glacial epoch (from three million years ago) immediately preceding the Holocene epoch of modern life as we know it, the remains of the woolly mammoth, horses, mastodons, camels, bison, and early man have been recovered (Hager, 1970).[4]

More recently, in the last century, great herds of the bison roamed the valleys and basins of Carbon County. Today the bison have been replaced by herds of domestic sheep and cattle which graze in the company of pronghorn antelope. Winter snow melt provides their necessary water supply. The few bison seen today are primarily in small commercial herds raised for market.

The third unit of man's exploitation in Carbon County combines the timbered and alpine zones with the adjacent foothills scrub zone. Altogether, the Medicine Bow National Forest lands embrace 410,130 acres (or approximately 640 square miles) of these zones, of which 20,125 acres (roughly 31 square miles) are state or privately owned. In this area are vast timber resources, summer livestock grazing range, many mining claims, and recreational lands. To manage the national forest, the U.S. Forest Service has delineated three ranger districts: Bow River, with offices in Medicine Bow, Brush Creek in Saratoga, and Encampment.

The original Medicine Bow Forest Reserve was established by Presidential Proclamation in 1902. The Sierra Madre Forest Preserve was created four years later, in 1906, and was subsequently redesignated the Hayden Division of the Medicine Bow. Over time, additions were made and, by 1907, the national forest lands within Carbon County were essentially complete (Bruce, 1959).

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[4] See Cynthia Irwin, et al., "Wyoming Muck Tells of Battle: Ice Age Man vs. Mammoth," National Geographic Magazine, CXXI, 6 (June, 1962), for the reconstruction of the so-called "Union Pacific Mammoth Kill Site" near Rawlins.

Harvest of the timber resources began in the era of railroad tie cutting, mainly along the headwaters of the Medicine Bow River, along Rock Creek, near Encampment, on Coad Mountain, and at French Creek. Later, sawmills for construction materials' production replaced the tie cutting in importance.

Grazing is a second major use of the forest, alpine, and foothills land. The grazing of national forest lands went unregulated until 1905, when the first grazing fees were levied. Since then, grazing by sheep and cattle has been closely controlled, and today it is operated on a strictly regulated lease basis (U.S. Forest Service, 1965a, 1965b, 1966; Bruce, 1959).

The Medicine Bow Forest was recognized early as an important watershed for the valley lands below, and water conservation has long been a key management concern.

Mining and recreation are the other two major uses of these zones. The history of mining in the Medicine Bow Forest is sporadic. It began in the 1860s, when gold was discovered along its creeks, and peaked at the turn of the century with the copper boom of Grand Encampment. Hunting, fishing, picnicking, and backpacking have been primary activities in the forest zone. Other recreational uses include winter sports, primarily skiing and snowmobiling.

## Wind, Weather, and Water

Carbon County is essentially an arid, windswept region. Summer, the peak agricultural season, is hot and dry. Winter is cold and snowy, accentuated by harsh and sudden storms.

Rainfall and temperature variations in School District No. 2 are typical for the Rocky Mountain region. Precipitation for the lower agricultural zones averages 11.37 inches annually, based on records

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kept at five widely spaced stations (Becker and Alyer, 1964b).[5] The greatest amount of rain falls in the month of May. The winter months of December, January, and February are the driest, although after the snowpack has melted and the rivers and streams have dropped, the dusty summer months of July and August seem much drier.

Temperature probability records exist only for Saratoga and Encampment. Compared with three other recording stations in the western portion of the county, temperatures are about average.[6] Throughout the county, mean monthly temperatures for all stations are lowest in January and highest in July. For Saratoga and Encampment, the mean low January temperatures are +20°F and +22°F, while the mean July highs are +66°F and +65°F, respectively. The county's extreme lowest temperature of -55°F was recorded in January at Saratoga. Extreme highs in July include 100°F each at Saratoga and Encampment, and 102°F at Rawlins (Becker and Alyer 1964a). A prevailing southwest wind, and an occasional northerly, lower the effective temperatures by adding a significant chill factor. Frost-free days number between 80 and 100 annually.

Water, of all the elements of the natural environment, has probably had the greatest influence on life in Carbon County. Throughout the state of Wyoming, water rights from ground and surface sources have been extremely important in initial settlement patterns, subsequent agricultural and natural resource development, and in the overall economics of this arid region.

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[5] Annual precipitation amounts for each station are: Encampment, 14.56 inches; Saratoga, 9.29 inches; Elk Mountain, 11.79 inches; Leo (north of Hanna), 10.76 inches; and Medicine Bow, 10.44 inches. These figures are based on records kept between 1931 and 1960, except for Medicine Bow for which records are older. The addition of Rawlins (10.43 inches) and Dixon (12.55 inches) only raises the overall county precipitation average to 11.40 inches annually (Becker and Alyer 1964b). Higher rainfall amounts recorded for the Sierra Madre and Medicine Bow Mountains range from 30 to 45 inches annually (U.S. Forest Service, 1965a, 1965b, 1966).

[6] Temperature probability records in all of Carbon County exist for Saratoga, Encampment, Dixon, Rawlins, and Seminoe Dam (northwest of Hanna). Records have been kept on an average of 30 years at each station. Records from Pathfinder Dam, in Natrona County near the Carbon County line, may be taken as indicative of most northerly reaches of the county; they tend to be slightly higher than elsewhere in Carbon County during the summer months (Becker and Alyer 1964a). Somewhat lower winter temperatures (to -60°F) have apparently been recorded in the forested regions of the Medicine Bow and Sierra Madre Mountains (U.S. Forest Service 1965a, 1965b, 1966).

The ranchers need water to irrigate their hay fields and care for their stock. The pioneer ranchers either prospered or were broken by the relative availability of a reliable, safe, water supply. Water is equally essential to the mining and energy development industries and to the towns those industries have fostered. Likewise, the tourist and recreation industries depend on water.

Water was a primary concern for all who traversed this region in prehistoric and early historic times. Wild game and Indian trails followed closely the main rivers and their tributaries. The hot springs in the valley at Saratoga were an especially strong attraction. Called the "Indian Bathtubs" by old timers, they were believed to have curative qualities. A daily supply of water along the emigrant trails was also important. Various forts and wayside stage stations and the more permanent towns were each located strategically beside springs, a river, or stream.

## THE EARLY YEARS

### The Mountain Men

The early history of the white man in Wyoming begins with the trappers, traders, mountain men, and explorers of the eighteenth and early nineteenth centuries. They included French, English, and Americans who "explored the area thoroughly, skinned thousands of beaver, lived virtually as savages, and for the most part vanished from history without leaving an impact, except for a few place names, on modern Wyoming" (Larson, 1965, p. 9). Some of the more famous men among them include the Verendrye brothers, John Colter, Jim Bridger, Jim Baker, William Sublette, Wilson Price Hunt, Robert Stuart and many others, some of whom were partners and employees of John Jacob Astor.

The first recorded penetration of the geographic confines of Carbon County was in 1825, by the William H. Ashley Expedition. General Ashley led a party of 25 men, mostly trappers, loaded with trading goods to exchange for furs when reaching the western mountains. They moved northwesterly up the Laramie Plains (in Albany County) and traversed Carbon County passing by Elk Mountain, then crossing the North Platte River and the Continental Divide at the west. The significance of their route lay in its practicality, avoiding the mountains. Ashley's route later became part of the Overland Trail of the pioneers. Ashley is also noted for having contributed to the development of the rendezvous system of fur trading (Barnhart, 1969, pp. 31-34).

The western fur trade era spanned four decades, dating from the Lewis and Clark Expedition of 1804-1806. It was not until near the end of that period that southern Carbon County was penetrated by mountain men in search of unexploited trapping grounds. Until then, this mountain and forest region was left to the Indians, principally the Ute, Arapaho, and Cheyenne. Sioux and Shoshone were also reported in the region, and farther north, in the vicinity of the Seminoe and Freezeout Mountains, Blackfeet and Nez Perce Indians were encountered (Barnhart, 1969; Pennock, 1929).

In 1837 or 1838, mountain men began trapping beaver in Indian country in and around the Sierra Madre Mountains. Men like Jim Bridger, Henry Fraeb,[7] Jim Baker, William Ashley, William Sublette, and Jim Fitzpatrick are known to have trapped and wintered there. A small trading post, called "Fraeb's Post," was built near the present site of Savery on the western side of the Sierra Madre Range. Trapper-traders occasionally wintered on the eastern side of the range, in the Encampment Valley where an annual fall rendezvous of trappers and Indians is said to have been held. Its site was known as "Camp le Grande," from which Grand Encampment took its name. That small rendezvous was similar to the more famous rendezvous at Green River in western Wyoming, earlier in the trapping era (Barnhart, 1969; Junge, 1972a).

Some Indians were hostile to the whites who continually violated their aboriginal rights to this valued hunting ground, and conflicts occurred between them. One memorable battle happened in August, 1841, at Fraeb's Post. A large band of Indians attacked the small contingent at the fort, killing seven or eight whites including Henry Fraeb. The Indians retreated after a day and, according to popular legend, fired the forest in their wake, burning a vast area. The evidence of the burn was noted for many years.[8] As soon as practicable, Jim Bridger led the remaining trappers west to Green River, where he erected a new trading post. (It later became Fort Bridger and figured importantly in the overland pioneer migrations.) Years later, when the fear of Indians had diminished somewhat, Jim Baker (who had survived the battle) returned to settle in the valley of the Little Snake River near Savery.[9] He remained there many years and became a local folk hero (Barnhart, 1969, pp. 34-39; see also Mumey, 1931; Alter, 1951; and Junge, 1972b).

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[7] Sometimes encountered as "Frapp" or "Frappe."

[8] By another account, the forest of the Sierra Madre was burned by Ute Indians in 1879 in order to drive game westward toward Utah where they were going to be resettled on a reservation (Pennock, 1929). Sometime after the famous battle of 1841, Bastion Mountain was renamed Battle Mountain in honor of the event which also provided the name for nearby Battle Lake. Bridger Peak, the highest point in the Sierra Madre, was named for Jim Bridger.

[9] Jim Baker's cabin has been preserved as an historic structure, and has been on display in Cheyenne for many years (see Junge, 1972b). It is scheduled to be returned to its original site in the near future.

The short era of the trapper-trader saw no permanent settlement in Carbon County. Temporary forts and encampments were soon abandoned in the face of Indian hostilities, and the decline of the buffalo eliminated a major source of food and hides. The dominant values of this short era were those of ruggedness and individualism, although the mountain men and their Indian wives and families were frequently dependent on others like them in the face of severe environmental elements. Their era passed in one generation, with little impact on the settlers who followed them later in the century except as myths and legends of their exploits were heard and embellished across the land.

Later, ranchers of the twentieth century viewed their predecessors, the frontiersmen, as men "who came west...just for the adventure and 'hell' of it, or to look for new homes or an opportunity..." (Burns, et al., 1955, p. 562). For the most part, the frontiersmen, or "old scouts," were viewed as honest, hard-working, hard-living men...

> but in some instances a small number used any means, fair or foul, which was at their disposal. These solitary and collective people built up what is now spoken of as the western personality. They were a lonely friendly sort who kept many things to themselves but were always ready to assist one through a wild, dangerous country and give every help within their power, which often consisted of a marksmanship respected by foes as well as friends. Their marksmanship was an absolute necessity for they were dependent upon it for their safety and food...they were modest persons who went about their daily tasks with little thought of public acclaim but their deeds of valor lived after them and today their names are carried on by statues and by mountains, lakes, rivers, etc. (ibid.).

The era of the fur trade and of the mountain man drew to a close in the 1840s, but legends of their adventures grew famous throughout the American East. There, a strong curiosity about the West began to develop. Among the myths that were heard during these times was one of a vast, unpopulated, inhospitable, buffalo-covered prairie wasteland known as the "Great American Desert." That was a popular shibboleth of "forest man"--Europeans and Americans emerging from the eastern woodlands--who saw the prairie primarily as a large barrier to an expansive American destiny in the Far West (see Malin, 1967). This negative image touched Wyoming which was considered "a region subject to storms as unpredictable as they were violent...a no-man's land to be crossed over and left behind as quickly as possible" (Burroughs, 1971, p. 3).[10]

## Travelers Across the Land

Across this prairie landscape in the mid-1800s came new kinds of men, the missionary, the scientific explorer, the sportsman, and in large numbers, the indomitable pioneer emigrant seeking land to settle farther west in Utah, Oregon, Idaho, and California.

As early as the 1840s, agitation was beginning to be heard for the construction of a transcontinental railroad to the Pacific. In 1853, railroad feasibility surveys were authorized under the supervision of the U.S. Secretary of War, and shortly thereafter, explorations of several main and subsidiary routes were undertaken. Three surveys traversed Carbon County, one led by John C. Fremont with Kit Carson as guide, one by Howard Stansbury with Jim Bridger as guide, and one by Frances T. Bryan (see Barnhart, 1969; Smucker, 1856; Goetzmann, 1959).

Although the survey reports detailing possible routes of travel through southern Wyoming were not, at first, given much attention, the presence of large deposits of coal reported in that region ultimately

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[10] The journal of Captain Howard Stansbury, who led one of the earliest expeditions across southern Wyoming, reflects the general feeling of worthlessness of the prairie landscape and the sentimental virtues of a wood and forest environment. Captain Stansbury wrote this upon reaching the Platte River crossing in Carbon County, from the west, in 1850 (Barnhart, n.d., Platte River Crossing):

> The cottonwoods around our camp are the first trees, worthy of the name, that have greeted our eyes for more than a year. They seem to us like old friends, and, as they waved in the fresh breeze over our heads, reminded us of those beloved woodlands from which we had been so long separated. Oh! With what longing desire we had looked forward to such a sight; while our souls, sick of rolling prairie, barren plains, bald and rocky ridges, muddy flats, and sandy wastes, sought in vain for the forest shade and those hills of living verdure which gave the charm to every landscape. Day after day, week after week, had we journeyed o-er that desolate basin, without a tree to be seen in the whole horizon. But now the rustling sound of embowered leaves assured us that we had once more reached a spot fitted by nature for the habitation of man....

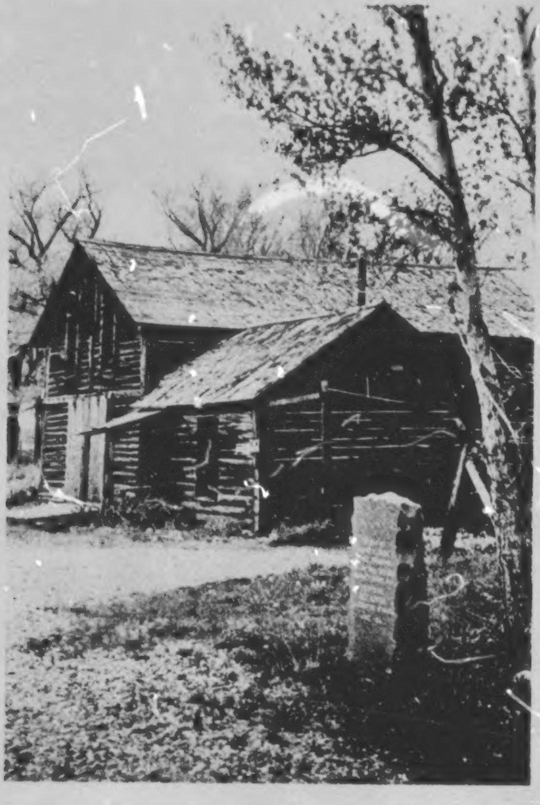
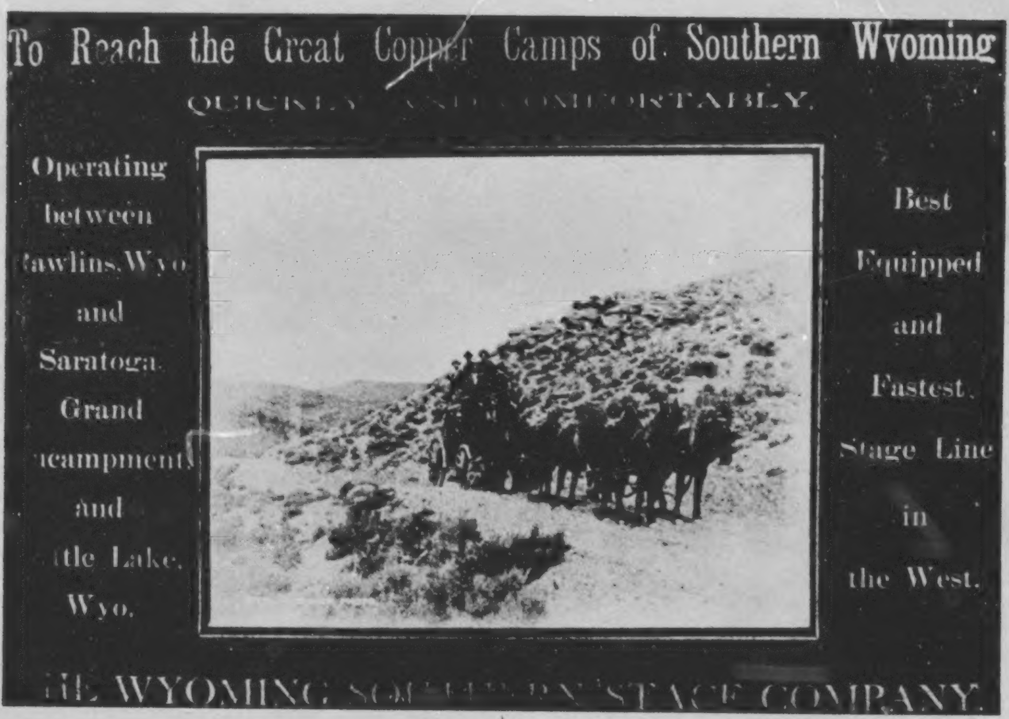


Fig.5. The site of Old Rock Creek Stage Crossing, Overland Trail, 1862-1868.



To Reach the Great Copper Camps of Southern Wyoming

QUICKLY AND COMFORTABLY.

Operating
between
awlins, Wyo.
and
Saratoga.
Grand
ncampment
and
ttle Lake,
Wyo.

Best
Equipped
and
Fastest
Stage Line
in
the West.

HE WYOMING SOUTHERN STAGE COMPANY.

Fig.6. A stage line advertisement, probably several decades later.

swayed the railroad designers to give them priority consideration. The final decision placed the railroad tracks across Laramie, Albany, and Carbon Counties, and westward across Sweetwater County toward South Pass. The building of the railroad was interrupted by the Civil War, and it was not until a quarter of a century after the first clamor was voiced that the Union Pacific Railroad through Wyoming was complete, in 1869.

Meanwhile, emigrants had been crossing southern Wyoming in large numbers. Their main route, the Oregon Trail,[11] followed the North Platte River upstream from Fort Laramie in eastern Wyoming westward past the site of present day Casper, from which it turned up the Sweetwater River. Pioneers missed crossing Carbon County at first, until conditions forced a change in routes.

Emigrants travelling through this region needed military protection against the Indians. To that end, military forts were established at strategic points along the way. As the Civil War ensued, however, western garrisons were reduced to skeletal numbers and adequate protection for travelers was not available. The Indian threat along the Oregon Trail, which passed through their rich hunting grounds, was intense.[12] This caused overland travelers and stage line operators to seek a safer, alternative route at the south along the route pioneered by Bridger, Ashley, and others, across Carbon County.

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[11] The Oregon Trail is more precisely called "The Oregon-California-Utah Trail" (Larson, 1967, p. 9).

[12] Following his journey along the Oregon Trail in 1846, Francis Parkman remarked in his book, The Oregon Trail, on the transformation of Indian life on the high prairie:

> Great changes are at hand in that region. With the stream of emigration to Oregon and California, the buffalo will dwindle away, and the large wandering communities who depend on them for support must be broken and scattered. The Indian will soon be abashed by whiskey and overawed by military posts, so that within a few years the traveler may pass in tolerable security through their country. Its danger and its charm will have disappeared together.

It was these changes, manifest in the white pioneer and the soldier, against which the Indian fought bravely but unsucessfully. Many years passed before a "tolerable security" was to be found.

In 1862, with the establishment of Fort Halleck near Elk Mountain, the Stage Coach King, Ben Holliday, transferred his Overland Stage and Express Company equipment to the southern route across Carbon County. This new stage route drew emigrants to it, and it was subsequently renamed the Overland Trail.[13]

There were 11 stage stations on the Overland route within the confines of the present county, spaced on an average of 11 miles apart,[14] at Rock Creek (Arlington), Medicine Bow (Elk Mountain), Elk Mountain (Fort Halleck), Pass Creek, North Platte, Sage Creek, Pine Grove, Bridger's Pass, Sulphur Springs, Waskie (Washakie), and Duck Lake. From the latter, it was about 13 miles to Dug Springs Station on the Red Desert of Sweetwater County, and from there westward other stations were established. At Fort Bridger, the Overland Trail rejoined the trail to Utah, Oregon, and California.

The stations provided fresh horses for the stage coaches and food for travelers. Meals were mostly beans, bacon, and coffee and were reportedly "wormy, moldy, and the coffee was considered fresh if made only a week earlier" (McAuslan, 1961). But after an uncomfortable, bumpy ride, they were welcome outposts.

Although the Overland Trail route had been chosen to avoid Indians, the pioneers, soldiers, and station keepers were not totally free of their harassment. At various times over the few years the route was used, Indians attacked wagon trains, drove off livestock, and burned station houses. Fort Halleck was the only fort on the route, and its garrison had difficulty in controlling the Indians. A number of bloody encounters are recorded (Barnhart, 1969, pp. 58-82 passim; McAuslan, 1961). It was not until 1865, after the end of the Civil War, that more troops were again available to ease the situation. Meanwhile, gold was discovered in Montana and new forts were established along the Bozeman Trail, farther north, drawing much of the traffic off the Overland Trail. In 1866, Fort Halleck was abandoned, and with the advent of the railroad in Carbon County in 1868, Ben Holliday sold out to Wells-Fargo Express Company. Wells-Fargo continued the overland stage operations for several more years before encountering financial troubles. Shortly after the opening of transcontinental traffic on the railroad in 1869, the Overland Trail was abandoned.[15]

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[13] It is popularly thought that the Overland Trail followed the route of the Cherokee Trail, so called after a band of Cherokee Indians trekked across the region in 1849 seeking new lands on which to settle in the West. Some old-timers refer to a northern and southern route to the Cherokee Trail (Burns, et al., 1955, p. 564). At least one scholar who has studied the routes (McAuslan, 1961) considers the two tracks to be quite separate. The Overland Trail traversed northwesterly along the eastern side of the Medicine Bow Mountains across the Laramie Plains, passing Elk Mountain, and turning westward to cross the Continental Divide at Bridger Pass. The original Cherokee Trail, on the other hand, entered the North Platte River Valley out of North Park, Colorado, at the south. It went in a northwesterly direction at the base of the Sierra Madre, then turned westward by way of Savery and the valley of the Little Snake River. (The route through Carbon County is clearly marked on older topographical maps of the U.S. Geological Survey.)

[14] The average distance between all 31 stations across southern Wyoming was 12 1/2 miles (McAuslan, 1961).

In the interim, the nuclei of several future settlements had developed along the Overland route, principally at Arlington (at Rock Creek Station) and Elk Mountain (at the Medicine Bow River Station). Other stations and the site of Fort Halleck were abandoned, and little remains to show for them today. At periodic places along the route, however, old pioneer graves may still be seen, and historic markers have been placed to appraise the modern traveler of that early era. Many soldiers and station attendants stayed on in the region; some of them settled in the new railroad and coal mine towns, and some established pioneer ranches.

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[15] Three of the Overland Stage Stations located within the confines of Carbon County have been nominated to the National Park Service's National Register of Historic Places: Fort Halleck, Platte River Crossing (alternately called Bennett's Crossing), and Bridger Pass.

Carbon County, particularly in the region of the Overland Trail, has long been important as a major route of travel across the high plains. Both men and animals sought natural passage around Elk Mountain and the Medicine Bow Range, and westward across the Continental Divide via Bridger Pass, in their migratory movements east and west. Man's transitory presence in the region is evidenced by prehistoric finds and historic and contemporary establishment of major transportation routes. Carbon-14 dating of archaeological material from the vicinity of Bridger Pass places man in the region as early as 11,000 years ago. The discovery of the Garrett Allen Prehistoric Site, four miles north of Fort Halleck, establishes that an Indian campsite of major significance existed there off and on between c.1500 B.C. and 1700 A.D. Only a century ago, in the 1860s, the Overland stage and wagon route was established here, followed by the transcontinental railroad a few miles north (12 miles north of Fort Halleck at Hanna). Most recently, in October, 1970, the four-lane transcontinental Interstate 80 highway was opened past Elk Mountain. The paucity of evidence of permanent prehistoric settlement in the region, and the slowness to establish settlement in historic and modern times, however, places emphasis on the generally transitory nature of man's presence here.

## The Coming of the Union Pacific Railroad

> ...subduing unknown wildernesses, scaling unknown mountains, surmounting untried obstacles, and binding across the broad breast of America the iron emblem of modern progress and civilization (Union Pacific Coal Company, 1940, p. 22).

The railroad, like the Overland Trail, was an expression of national trends and events. Yet, it was to have a lasting impact locally, providing for access to national markets, increased settlement, and development of national resources in Carbon County.

Suggestions for a transcontinental railroad were heard as early as 1840. In 1853, the Congress passed the Army Appropriation Bill, which allocated $150,000 for preliminary surveys for a Pacific railroad. Five alternate routes were proposed. One of these followed the central overland route between the 41st and 42nd parallels, passing through Carbon County.[16]

There were compelling reasons for having a transcontinental railroad. It would open vast areas of the country to settlement, unify the nation by providing better transportation and communication between the west coast and the East, and serve as an improved trade route, internally and for China trade.

There was, however, much political turmoil during the pre-Civil War years, and construction of a Pacific railroad was delayed by sectional disagreements over a choice of route. When the southern states seceded in 1861, there were fears in the North that the gold fields of California might be lost to the South. The need to unify the country was now obvious and pressing, and in 1862, the Railroad Act was passed.

The Railroad Act provided for the incorporation of the Union Pacific Railroad Company and for the construction of a railroad and telegraph line westward from the Missouri River to a connection with the Central Pacific Railroad Company of California, which was building eastward from Sacramento. The construction of the railroad was to be a joint venture by

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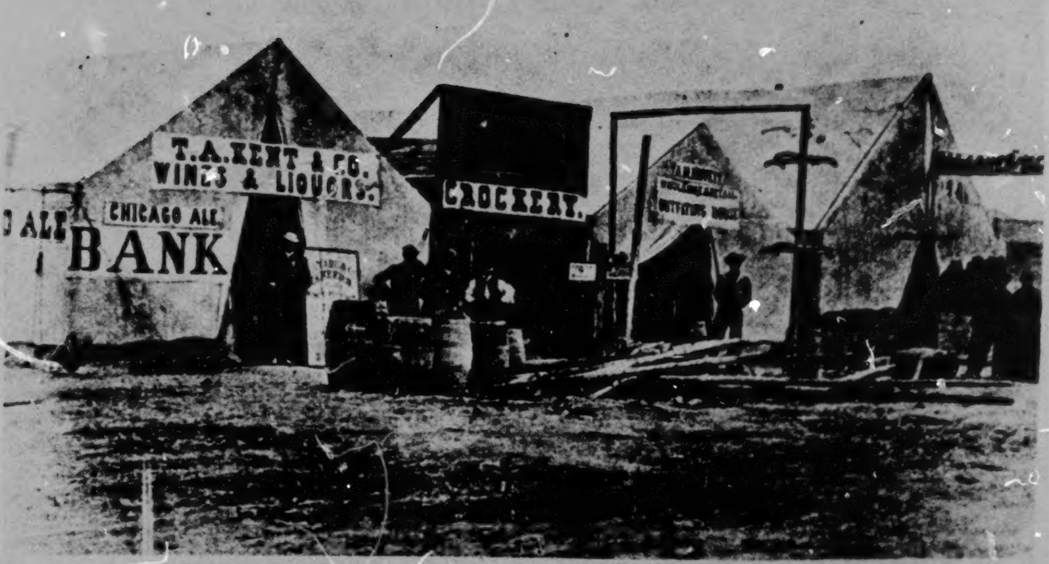
[16] The central route passed through Indian Territory, and therefore, violated the Fort Laramie Treaty of 1851 which had guaranteed non-invasion of Indian lands. However, in the spirit of manifest destiny, Congress passed the Kansas-Nebraska Act of 1854, which provided for a railroad through what was formerly Indian Territory. (In 1854, Nebraska Territory included all of Wyoming east of the Continental Divide.)


T. A. KENT & CO.
WINES & LIQUORS.
CHICAGO ALE.
ALE
BANK
CROCKERY.

Street scene, Benton, Wyoming Territory. Stores of Gallager and Megeath, A. H. Huyett, T. A. Kent, A. J. Ware and Co.

Fig.7. Benton, an end-o-tracks railroad town, 1868.

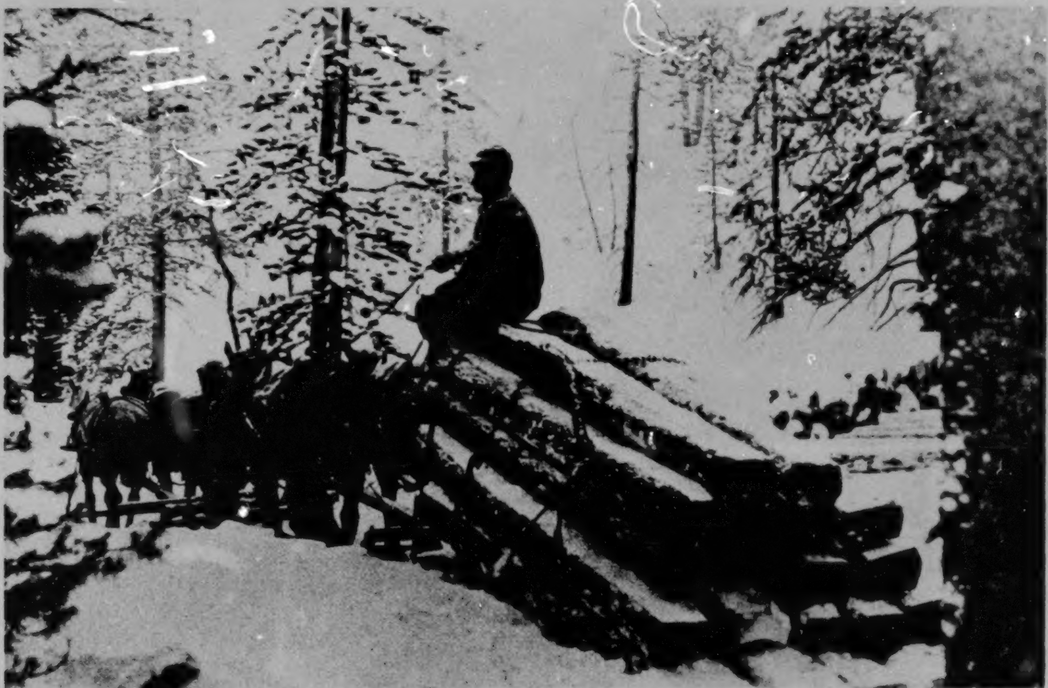


Fig.8. Hauling fresh cut railroad ties on a "go-devil" near Encampment, Wyoming, c. 1908.

the railroad corporations and the United States Government. The government had some powers to regulate the construction and location of the railroad, but its role was primarily to furnish monetary incentives in the form of government bonds and land grants to encourage speedy construction.

In 1864, the Second Railroad Act doubled the 1862 land grant, giving the railroad 20 sections of land, alternately, on either side of the tracks for every mile laid. The total acreage granted to the Union Pacific is reported to be 11,141,114, and of this, 4,582,520 acres are in Wyoming (Larson, 1965, p. 63).

There were several reasons for routing the railroad through southern Wyoming. The mountains here were easier to cross[17] than were passes near Denver to the south. The Indians here, under the leadership of Eastern Shoshone Chief Washakie, were more tolerant than those to the north. There was water available and wood for fuel[18] and for ties. But most important, there was coal.

> A discovery of almost incalculable value to the Company, and to the entire country along the line of the road, has been that of enormous beds of very excellent coal in the Laramie Plains.... At Carbon Station, about 650 miles west from Omaha, a vein sixteen feet in thickness is being worked and about one hundred tons of excellent coal taken out per day. This coal is semi-bituminous, and is found to be better adapted to use upon locomotives... (Union Pacific Coal Company, 1940, p. 11).

This passage from a company report dated September 20, 1868, suggests the importance of coal to the railroad during these years. By routing the railroad through the coal beds, the railroad would obtain the land and secure to itself easy access and a plentiful supply of fuel.[19]

By the summer of 1868, 500 miles of the Union Pacific were completed, including the section which passed through the area now known as Carbon County, Wyoming. Several thousand workers were involved in the project, and the process was of sufficient interest to be described in an eastern newspaper:

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[17] By contract, the grade was allowed to be no steeper than 90 feet per mile (Linford, 1947, p. 176).

[18] "When trains first ran over the Union Pacific railroad, wood was burned in the engines. Later coal was burned in freight engines, but wood was still used in passenger engines" (Ellis, n.d./a).

[19] The average freight locomotive, when fully loaded, consumes about one ton of coal in 10 miles (ibid., p. 25).

> The road is graded a hundred miles in advance. The ties are laid roughly in place, then adjusted, gauged and leveled. Then the track is laid.... A light car, drawn by a single horse, gallops up to the front with its load of rails. Two men seize the end of the rail and start forward, the rest of the gang taking hold by twos, until it is clear of the car. They come forward at a run. At the word of command the rail is dropped in its place, right side up with care, while the same process goes on at the other side of the car. .. Close behind the first gang come the gaugers, spikers and bolters, and a lively time they make of it. It is a grand Anvil Chorus that those sturdy sledges are playing across the plains. It is in triple time, three strokes to a spike. There are ten spikes to a rail, four hundred rails to a mile, eighteen hundred miles to San Francisco (ibid.).

Construction continued in this manner, averaging two miles per day, changing the Wyoming landscape overnight.

Some of the effects of the railroad were transitory. Fort Fred Steele, for example, established on June 30, 1868, to protect the Union Pacific line and the Platte River railroad bridge and its builders, was abandoned by the military in 1886. "End-o-track" boom towns had even shorter life spans. One of these was Benton, the first designated terminal town west of Laramie City. Another, nearby, was called Brownsville. Benton, set on the edge of Fort Steele military reservation, reached a population of 3,000 soon after July, 1868, when it was established. Here,

> roughs, thieves, petty gamblers, fast women and the usual accompaniments of railroad towns flourished.... It was said that no matter how virtuous men had been before coming to the city of tents, the spirit of wicked adventure which seemed to saturate Benton, soon had the upper hand... (Ellis, n.d./a).

Such a place was not destined to last, and, after only a few months, Benton was deserted when Rawlins was designated terminal town.

But the railroad produced more permanent settlements as well. In 1867, before the railroad, the population estimates for Wyoming were as low as 600. When the rails left the border of Wyoming, a population of 11,000 remained in the towns along the Union Pacific route (Linford, 1947, p. 180).[20] Many of these settlers were brought in by the railroad as Union Pacific employees, working either on the railroad or in the company's coal fields. Old Carbon, Dana, and Hanna existed solely for the purpose of housing coal miners, and these towns thrived as long as the mines held out and as long as the railroad needed coal.

Another railtown, established in 1868, was Medicine Bow, but unlike the others, this town grew slowly, and it never depended exclusively on any one service or resource. It began as a Union Pacific pump station, providing water from the Medicine Bow River to fill the boilers on the railroad's steam engines. Later, stockyards were built and the surrounding ranchers used the town as a shipping point for their cattle, sheep, and horses.

Local historians claim Medicine Bow was the "wildest town along the Union Pacific Railroad" (Ellis, 1932-38, p. 9), and its reputation was further enhanced by novelists such as Jules Verne and Owen Wister.

There were numerous changes in addition to new towns which are associated with the coming of the railroad. The railroad was directly responsible for the development of the coal industry which provided jobs and fuel for the influx of settlers. Indirectly, it opened the way for the livestock industry by providing efficient transportation to the nation's population centers in the East. Ultimately, it affected Wyoming's political development, as well. In an address to the First Wyoming Territorial Legislature in 1868, Governor John A. Campbell claimed that "for the first time in the history of our country, the organization of a territorial government was rendered necessary by the building of a railroad" (Larson, 1965, p. 36).

Once the territorial government was established, and even after statehood in 1890, the Union Pacific continued to be an important factor in local and regional politics. As the major industry, landowner, and employer with exclusive (albeit government-regulated) control of the primary transportation network, the Union Pacific had a position to maintain and interests to look after. The railroad maintained an active lobby, and at times attempted to influence the courts (Frazer, 1927, p. 74ff.). In 1908, the Cheyenne Leader, a Democratic newspaper, charged: "The Union Pacific has ruled Wyoming ever since it was organized as a territory. It controlled and used the Republican machine and has owned every legislature with one possible exception in forty years" (in Larson, 1965, p. 341).

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[20] According to the 1870 census, Carbon County towns included Rock Creek, 80; Sherman, 148; Carbon, 244; Como, 15; Dana, 22; Fort Steele, 252; Medicine Bow, 105; Percy, 32; Rawlins, 612; St. Mary's, 24; Separation, 22; for a total town population of 1,556.

The Union Pacific's control of Wyoming was considerable, but not total. The legislature passed some anti-Union Pacific measures, outlawing "yellow dog" contracts (which forced company employees to sign away their right to sue the company) and increasing railroad taxes by raising assessments on railroad property values.

The influence of the railroad has diminished in recent years. There has been little new construction since 1914, at which time there were 1,900 miles of track within the state (Larson, 1965, p. 340). New technology meant fewer railroad employees, and competing modes of transportation led to cutbacks in railroad services. Still, the historic and contemporary importance of the Union Pacific's land holdings along the tracks is significant regarding the ownership and control of vast mineral deposits. The mineral potentials may be of even more significance than the tracks themselves. Furthermore, the impact of the railroad workers on politics and attitudes throughout the state cannot be ignored.

## THE MIDDLE YEARS: EXPLOITATION AND SETTLEMENT

### The Development of the Range Industries

#### Introduction

Cattle and sheep both predated the arrival of the railroad in Wyoming, but it was the railroad, actively promoted as the primary means of transport to eastern cattle markets, coupled with free range, good grass, and water, which prompted the all-out development of ranching and herding industries in Wyoming.

The first cattle and sheep in Wyoming were introduced by mountain men of the earlier era, men like William Sublette and Jim Bridger. In 1830, Sublette's party arrived at the Wind River fur rendezvous with several eastern cattle of English breeding.[21] In 1833, another fur man, Robert Campbell, drove several head of eastern cattle to the more famous rendezvous at Green River.

Later, during the 1840s and 1850s, numerous cattle were driven westward across Wyoming, and Carbon County, by emigrant pioneers. The trails were hard on cattle and they were often sold or simply left behind at forts and trading posts. Soon the traders, with an eye for profit, established a cattle trading and selling business at their small "trading ranches," or "road ranches."

> The need of the travelers for fresh work stock and the profits to be made out of such a trade induced many of the traders to go into the cattle business. One fat and well-conditioned work steer might be exchanged for two worn down and footsore ones. Dairy cattle, driven along with the [wagon] trains, appeared less valuable on the Sweetwater than they did in Missouri, and many a family cow, unused to the hardship that such a journey imposed, was destined never to reach the green valleys of the Willamette but was traded off for ten dollars or a little flour (Osgood, 1929, p. 11).

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[21] It is somewhat surprising that Spanish-bred cattle were not the first to be introduced in Wyoming. The first cattle in North America were reportedly brought from Spain by Cortez in 1521--six Andalusian heifers and one bull. It was from this Spanish breed that the early cattle of the American Southwest and of Texas were descended (Burroughs, 1971, p. 10).

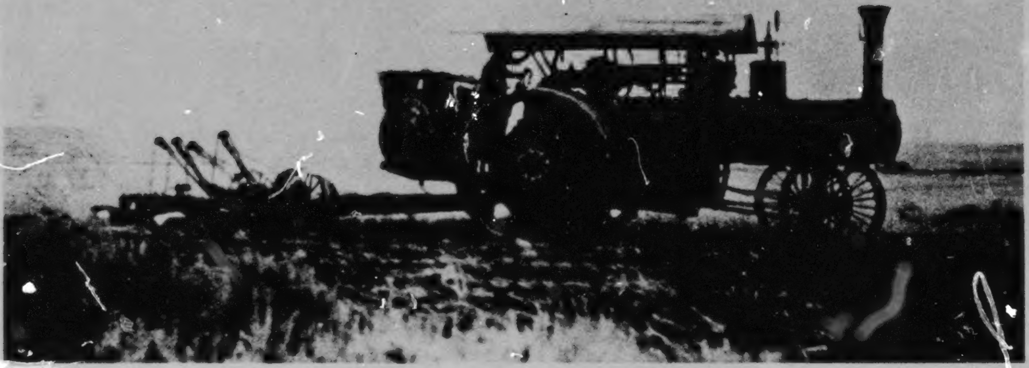

Fig.9. Old steam tractor and plow, c. 1910.

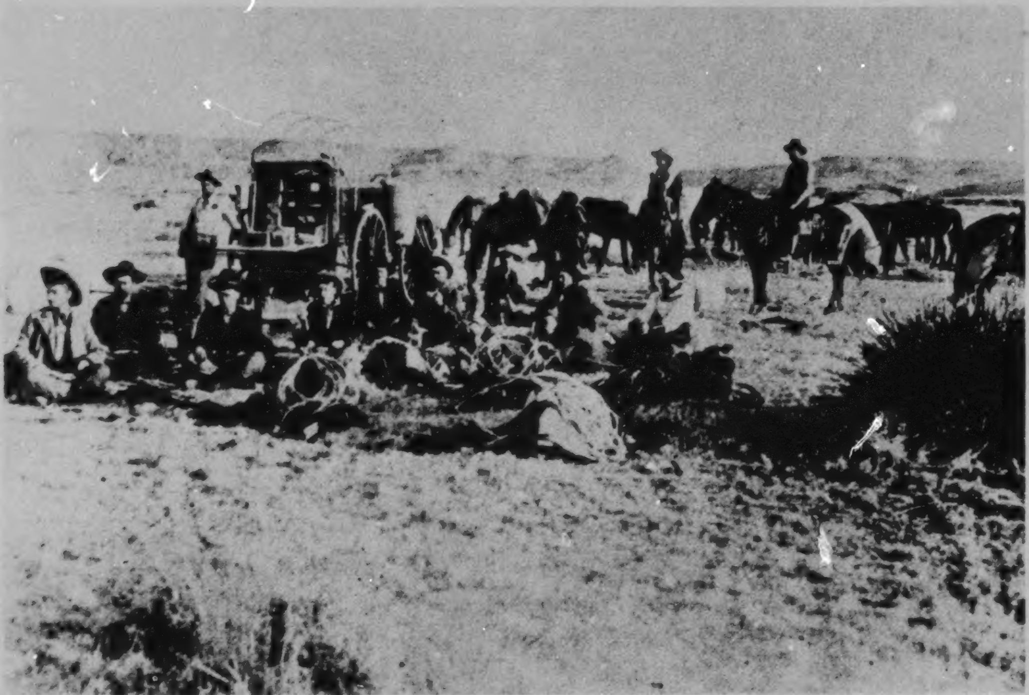

Fig.10. Early day cowboys and chuck wagon on the range in Carbon County.

Meanwhile, sheep and goats were introduced at Fort Bridger by Jim Bridger. Soon thereafter, sheep herding, as well as cattle production, was being actively promoted by a famous Fort Bridger resident, Judge William A. Carter (Larson, 1965, p. 165n.; Wentworth, 1948, p. 308).

Osgood lists two other early economic ventures along the pioneer trails: the sale of hay as forage for travelers' livestock and the operation of bridges and ferries at river crossings (Osgood, 1929, p. 10). The business of selling fresh wild game meat to wagon bound emigrants also developed (Pennock, 1927).

Outlawry flourished. The disappearance of mules, horses, and cattle along the Oregon and Overland Trails was usually blamed on Indians, but it was often instigated by white outlaws. Stock obtained by stampede or theft on one trail was transferred to the other trail and sold to emigrants "sorely in need of fresh work stock" (Burns, et al., 1955, pp. 598-599).

Few of the cattle encountered on the trails or at the road ranches remained long in Wyoming, and it was some time before breeding herds for beef production were established on any large or permanent basis (Burroughs, 1971, p. 10; Larson, 1965, p. 163ff.).

Seth Ward, a trader, is said to have been the first actually to winter cattle in Wyoming (in the Chugwater Valley of Laramie County), in 1852. He was followed in 1854 by one Alexander Majors, who set his trail-weary animals loose near Fort Laramie, in eastern Wyoming, rather than drive them back to Missouri for the winter.[22] Majors later wrote about the historic venture in the Cheyenne Sun of April 15, 1885 (in Larson, 1965, p. 164):

> We did not turn the cattle out without sending some herders along with them...they came out in the spring in the very finest working condition.... I wintered cattle upon the same grounds for the following ten years and did not lose one-half of one per cent per winter. Knowing the facts above, I started the first breeding herd in Wyoming which was in 1862....

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[22] Wyoming's historian, T. A. Larson, speculated that a group of Mormon settlers at Fort Supply (near Fort Bridger) in southwestern Wyoming may have preceded Majors in wintering a small cattle herd there in 1853. A number of other stories were related by men forced to turn their animals "out to die" in the winter, and finding them in even better condition come spring (Larson, 1965, p. 164, 164n.).

## Promise and Disaster: the Cattle Boom and Bust

> To use the language of Cattle Land, steers had "jumped to seventy-five." This was a great and prosperous leap in their value. To have flourished in that golden time you need not be dead now, nor even middle-aged; but it is Wyoming mythology already--quite as fabulous as the high-jumping cow (Wister, 1902).

Wister wrote to an audience still in touch with the era of boom and ultimate bust in the early cattle industry, from the 1870s to the 1890s. His historical novel, The Virginian, set in Carbon County, made Medicine Bow famous and is acclaimed as an American literary work which tells it like it was. The Virginian has inspired countless novels of lesser worth over the intervening decades, and recently a popular TV series has borrowed its name and embellished its plot. But it is important to consider the real life and times of the era and the place, unromanticized and unembellished. The life of the original "cowpunchers" was hard, and the development, growth, and ultimate survival of the cowman is the core stuff of history of Carbon County and greater Wyoming.

The modern cattle industry in Carbon County dates from the arrival of the Union Pacific Railroad in 1868, but the exact circumstances of the first commercial herds are unrecorded. Barnhart (1969, pp. 152-153) writes that the earliest herds were undoubtedly owned by settlers at Elk Mountain and Medicine Bow. There are also records of men employed in the coal mines of old Carbon who turned their interest to ranching (Ellis, n.d./a, n.d./b), and there were a number of early tie-cutters who decided to try ranching as well.

Ranching at first was almost totally dependent on the vast and free range lands; indeed the physical basis of the industry was the public domain, where grass was free but water was precious. Ranchers were predominantly headquartered on small tracts of patented land in the valleys and always near a stream or spring.

> While it is true that the typical cattle ranch utilized thousands of acres of range on which to graze its stock, it should be noted that during this early period the largest part of almost every ranch was actually public domain--land owned by the nation but freely utilized by the rancher. The basis of the average "spread" was a small tract of patented land, sometimes as small as a quarter section but usually amounting to a section or two.

> In frequent instances...even this basic tract was actually part of the public domain to which no patent had been issued (Brayer, 1943, p. 5).

At first the roundup system prevailed, with the cattle allowed the freedom of the range on a year round basis. Periodically, the cowmen would round them up for shipment to eastern markets by train. The necessity of maintaining individual ownership rights, of protecting the herds, and of controlling grazing to prevent overcrowding led very rapidly to the establishment of stockmen's associations. After 1874, the roundups in southern Wyoming were strictly controlled by the Laramie County Stock Growers Association (later renamed the Wyoming Stock Growers Association). And almost simultaneously, the stockmen's association placed regulations on brand and marks registration, the control of maverick cattle, and the control of bulls on the range (Burroughs,1971, p. 33ff.; Osgood, 1929, p. 114ff.).

The advantage of bottom lands for hay production to augment the herd's natural forage during the winters was a major attraction to the North Platte Valley in Carbon County.

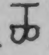
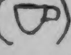
> The life of the "Open Range Cattle Business" in Wyoming, that is to say before the advent of barbed wire [in the 1880s and 1890s], when cattle were turned loose on the ranges, with no thought of preparing feed for winter and handled entirely by a system of roundups, was comparatively short and certainly spectacular and meteoric while it lasted... (Guthrie, 1927).

Eventually, most outfits turned to wintering their livestock almost exclusively at or near the hay lots.

In Carbon County, most early ranchers settled at first near the railroad or on spur roads. Some soon began to settle the hinterland along the North Platte and Medicine Bow Rivers and their tributaries. One early account of settlement near the remote Shirley Mountains, in the northern sector of the county, is representative of the pioneering spirit. It was recorded by Mrs. Charles Ellis, an early resident and the postmistress at Difficulty Creek. Two undated accounts entitled, "Difficulty, Wyoming and the TB Hills," and "The Winter of 1899," relate the circumstances of initial discovery and settlement on the range and of contingencies of ranching life from the perspective of a pioneer bride (Ellis, n.d./b, n.d./c).[23]

Mrs. Ellis writes that in the early years of coal mining at Carbon, near Medicine Bow, the Indians periodically gave trouble. On one occasion, they raided the town and drove off some horses. They headed north across the Medicine Bow River toward the forbidding Shirley Mountain region, easily outdistancing a posse which tried to follow them. The posse was forced to return to Carbon, discouraged at their loss, but elated at a new and promising countryside they had seen:

> The posse had been thwarted in their attempts to regain their horses but they had been rewarded in another way--they had discovered a beautiful and valuable country which they had not known existed. It was June and the country was beautiful. They told their wives and families of the wonderful possibilities for homes in this uncharted land. Heretofore, the only inhabitants had been wild animals, hunters, trappers and Indians. The women, brave and eager as the men to risk their all for homes of their own, added their enthusiasm to that of husbands and fathers; all decided to go north toward Shirley Mountain and locate land on which to make permanent homes for themselves.
>
> Shortly afterward Charlie Smith and John Watkins loaded their families and worldly goods into wagons and started north in great expectation. The teams plodded along over sagebrush, grease wood, gullies, rocks and hills, for there were no roads to follow; only tracks made by elk, buffalo, deer and antelope as they had gone back and forth to water. All went well with the travelers until they arrived at a crystal stream which flowed along, swiftly and noisily, down a valley with high hills to be seen on every side....
>
> The sparkling creek appeared innocent enough and the emigrants drove in. Instead of being able to drive across, they found to their dismay that the bottom was sticky mud. For hours they worked, dug, waded and worried, getting their wagon teams out of the miry stream. When they finally did get out they were agreed that in that creek they had met with "great difficulty"; accordingly they called the stream "Difficulty Creek," which name has lasted through the years (Ellis, n.d./b).

The first log house at Difficulty, 16 miles north of Carbon, was built below the towering hill known as "Beer Mug Hill," a landmark which rises directly above Difficulty Creek. Early ranches in the immediate vicinity were the Trabing Brothers' TB() Ranch, one "Missouri John" Massengale's Beer Mug() Ranch, and Nathan Amoss's spread. The latter was purchased by Charles Ellis of Elk Mountain in 1899; his grandsons are still on the land today. The Ellis brand at Difficulty is an italic letter *a*.

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[23] The authors are indebted to Mr. John Ellis for information concerning the early history of Difficulty, and to both him and the Wyoming State Archives and Historical Department for access to Mrs. Ellis's unpublished writings.

Eventually wagon roads were built into the Difficulty and adjacent Leo sections from Medicine Bow and Hanna, and in time bridges were constructed across the Medicine Bow River and various tributaries along the way. Today, county roads criss-cross this remote region, but severe winters still seal the region off from the outside world.

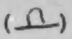
By 1904,there was enough settlement in the region to warrant a United States Post Office, and "Difficulty, Wyoming" became an official postmark. The post office at the Ellis ranch operated for 34 years, until 1937, under the direction of Mrs. Charles Ellis, postmistress. In 1910, the first school was established at the adjacent Beer Mug Ranch on Difficulty Creek. A school has been operated there, intermittently, ever since.

Barnhart writes that "some emigrants on the Overland Trail ended their journey in the area and early water rights were taken out from the Platte, homes established, and fine livestock ranches founded" (1969, p. 145). The first ranch at Saratoga, 20 miles south of the main line of the Union Pacific Railroad, was homesteaded by William Caldwell in the early 1870s. During the decade of the 1870s, a number of ranches were started.

About 1880, Taylor Pennock moved to Saratoga, then known as Warm Springs, and homesteaded land on the east side of the river. His career prior to then was not atypical of other pioneer settlers. Pennock came to Wyoming from the East in 1872. He worked as a meat hunter for overland travelers, tie-cutters, and Union Pacific employees; he also worked as a tie-hack, a trapper, prospector, and miner, a dairyman and hotel keeper at Fort Steele, a guide for eastern hunting parties, and a freight hauler between Fort Steele and Saratoga (Pennock, 1929; see also Barnhart, 1969, pp. 145-146).

Another early cattleman of note in Saratoga was W. L. Kuykendall, who registered four brands (H, HI, COB, and SU) in the Wyoming Brand Book for 1882, with his address as Warm Springs, Carbon County, and his range as Spring Creek (south of Saratoga). Kuykendall was the first secretary of the Laramie County Stock Growers Association, immediate forerunner of the famous and powerful Wyoming Stock Growers Association.

William Franklin Swan, a famous pioneer cattleman in southern Carbon County, developed a large livestock business along the North Platte and Little Snake Rivers in the 1880s. His "L7" (Ell Seven) ranches were representative of this early period, sometimes called the "era of the public domain" (1870-1895), the boom era of cattle ranching. Swan's L7 ranches were representative of the culture and economy of the era, and Herbert Brayer's (1943) remarkably detailed account of their history allows an in-depth look at the early life and times of ranching in the region. The following description of William Swan and life on the L7 spread is taken primarily from Brayer's accounts (1943, 1950), with incidental notes from other sources (Trenholm, 1945; Burroughs, 1971).

William Swan, the son of Henry Swan, came to Wyoming with his father in 1873. His father and father's brothers, Alexander and Thomas, formed the famous Swan Brothers cattle firm near Cheyenne, and briefly, in 1879-1880, William was a partner with them. William Swan then worked independently for two years before purchasing the "Hat Ranch" on Pass Creek near Elk Mountain, 24 miles north of Saratoga, in 1882. The brand was the shape of a hat () and the ranch's legal address was nearby Fort Steele. Later that same year, the Carbon County Journal of Rawlins listed William Swan as "one of Carbon County's cattle kings" (July 8, 1882, in Brayer, 1943, p. 7).

In 1883, Swan organized the L7 Cattle Company, consolidating the Hat Ranch, Cow Creek Ranch (between Saratoga and Encampment), Lake Creek Ranch (four miles north of Saratoga), and the Baggs Ranches (on the Little Snake River in the southwest corner of the county) into one operation. Almost simultaneously, Swan moved his residence to Denver (officially Cheyenne) and left the management of his ranches to subordinates. Thus he became one on a long list of absentee cattle barons, part of a system of land and cattle ownership common in the day of the cattleman, and still common today in Carbon County (and elsewhere in Wyoming and adjacent cattle states).[24]

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[24] The incentive for men of wealth to invest in cattle ranches during the heyday of the livestock industry prior to 1900 was based on the likelihood of profit. Today, incentives have changed, and often the investor is seeking a tax write-off by buying into the beef industry. More is said of this later.

The basis of William Swan's herd was short horned cattle, 4,000 of which he purchased in 1881 as an Oregon Trail herd. They had previously been branded "L" and Swan simply reversed the iron, adding "7" to the brand and creating the "L7" configuration. The brand was registered in Carbon County in August, 1881.[25]

In the same year as the formation of the Ell Seven Cattle Company, William Swan's uncle, Alexander Swan, organized the larger and more famous Swan Land and Cattle Company which was destined, briefly, to become one of the most prosperous cattle companies of the West. In that year, 1883, William Swan's L7 outfit was registered as second in size only to the Swan Land and Cattle Company's spread within Carbon County. Alexander Swan's larger company covered several counties.

To a degree, the lives of William and Alexander Swan ran parallel courses, although William was never in a position to rival seriously his uncle for political power and fortune. Both men were prominent in the early formative days of the livestock industry in Wyoming and both were important figures in the organization and development of the Wyoming Stock Growers Association. They each served on the executive committee, and Alexander Swan was, from 1876 to 1881, president of the association. Alexander's combined political and financial power, and his prestige in Cheyenne at the time, was beyond compare, but it suffered drastically with the financial collapse of his cattle empire in the spring of 1887.

The severe winter of 1886-1887--following hard on a long summer drought--created a serious situation throughout the Wyoming cattle country. Alexander Swan's losses were irreplaceable and broke him financially, the forerunner to many cattle company disasters. William Swan's cattle on the Carbon County ranges suffered nearly a 45% loss (from a count of 6,300 animals in the fall roundup of 1886, to only 2,852 animals in the spring of 1887). This catastrophe led to a decision to concentrate all L7 cattle on the ranches along the Little Snake River (ranging into northern Colorado) and to sell the ranches on the North Platte near Saratoga.

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[25] There is no indication of Swan introducing other strains of cattle to his herds, but it is not inconceivable that he eventually tried purebred Hereford cattle introduced to Wyoming by his uncle, Alexander Swan of Cheyenne. Today, all Hereford herds can be seen on many outstanding ranches in Wyoming and Carbon County, and Herefords often form the basic breeding stock for creating vigorous new cross-strains for market. Shorthorns and Angus cattle are also among the better known strains of cattle, of proven ability to produce quality beef, which are seen on the range.

Three years later, disaster struck again and all but destroyed the remaining Snake River herd. The L7 suffered a staggering loss of 75% of its herd during another bad winter (from approximately 5,200 animals to 1,300). Brayer (1950) describes the circumstances:

> The long, dry summer of 1889 resulted in the destruction of much needed grass. The range was heavily overstocked and the cattle grew steadily weaker and thinner. Fall and winter feed was almost nonexistent. Winter came with a ferocity previously unrecorded on the Snake River. By February, 1890, it was reported that "more dead cattle are found on the ranges than ever before and the backbone of the winter is not yet broken."
>
> Almost one month later there was still no letup in the weather. The snow was anywhere from 18 inches to five feet deep and the temperature wavered around 28 below zero.

Economic depression plagued the U.S. during the 1890s, and failure to recoup his losses, coupled with the slow recovery of the range, forced William Swan to sell out at a loss in 1894. His headquarters ranch reportedly sold for a mere $400 and his Snake River ranch for $150. Previously his investments in ranch property would have gone for a considerable fortune. (Compare these figures with the $2,500 sale price for the Hat Ranch, alone, following the earlier slump of 1887).[26]

This brief sketch of the boom and bust of one cattle kingdom can provide insight into early life in Carbon County. Accounts of the small ranchers of the era are not well recorded, but it takes little imagination to consider how they must have suffered when the suffering came. If the wealthy and powerful of the era could not make it with all of their combined resources, how then could the small operator survive? But he did survive and was the basis of Carbon County history for the next half century. He survived and prospered, in a relative sense, simply because he had less to lose and more to gain by long suffering and patience, and the hard work necessary to build a self-sustaining economy. It is significant that in the intervening years, until the mid-twentieth century, the small ranchers carried on the cultural and economic traditions that they and their fathers developed in the first place, in the wake of the demise of the famous cattle boom. Then, in the 1950s and 1960s, with the influx of eastern wealth in Carbon County and the re-establishment of absentee ownership, a new era and a new perspective in Carbon County's history began to emerge.

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[26] In concluding his account of the Ell Seven's rise and demise, Brayer writes this epithet (1950):

> Just north of the Snake River crossing at Baggs, Wyo., on the west side of the Rawlins highway, is the old Ell Seven headquarters. One building of the Ell Seven cattle kingdom still stands, but it will soon join the others which have almost totally disintegrated.

Brayer completes his account of the L7 spread by describing some aspects of life on the range, giving us insight into the foundations of "cowboy culture" at its roots. Brayer's account, encapsulated in the following few paragraphs, is generally representative of life on ranches during the early days and is the stuff of dime novels and TV westerns.

Life on the L7 ranches was rugged and hard, a no nonsense existence without the conveniences known to the modern day cowman. Ranch buildings were made of logs with dirt or sod roofs. Cowboys slept in the bunkhouses on wooden bunks covered with stiff mattresses of grass. Fuel for heat and cooking was wood, and candles or coal oil provided what little light was necessary at night. Travel was done by horseback, or by wagon or coach. Distance, as a perspective, was confounded by the time it took to get there and back on roads of bumps and dust, or mud and mire in season.

Horse corrals and what fences were needed around the hay meadows were of poles cut from the forest. Irrigation of those meadows was accomplished naturally, or often by hand-dug ditches from adjacent streams. Some ditches were several miles long, and their remnants can still be seen; some of them are still functional today.

A cowboy's personal belongings included his denims and woollens, his chaps for riding in brushy country, his Stetson and highly functional narrow-toed, high-heeled boots, a slicker provided by the outfit for use in wet weather, his personal saddle and bridle, and his bedroll which typically comprised a few blankets and a tarpaulin (for protection against the elements when he slept out on the range). The ranch provided horses, food and lodging.

The operation of the ranches was left to a manager and his foremen. The manager was highly paid and was second to the owner in authority. His foremen, who received $100 or more per month in pay, were directly responsible to the manager for the operation of the ranch according to the owner's wishes. Top hands received upwards to $60 per month, and regular cowboys received $40. The bulk of the work on the ranch was during the late spring, summer, and fall. Brayer describes the winter life of the typical cowboy:

> After the cattle had been shipped in the fall, it was usual to discharge all but two or three men of the ten or twelve "punchers" in the outfit. The remaining men would take care of the herds during the winter and the discharged men would head for the cities to spend their money. After the money was gone--and it usually didn't take very long--many of the men worked the "grub-route." This consisted of going from ranch to ranch in the cattle country, stopping for a few days at one of the ranches and then moving on again. The cowboys were welcome to stop at any ranch and stay as long as they wanted--at least until time for the next spring roundup when they could again be placed on the payroll. It was not unusual for the men to remain at the ranch where they had been hired or to return to it after they had disposed of their year's earnings (Brayer, 1943, p. 20).

Two main events each year were the annual spring and fall roundups. Branding and sorting for market were the primary objectives of these events. Brayer (1943, pp. 27-31) provides an excellent description of the typical roundup operation:

> Each roundup was a cooperative affair joined in by all ranches using the range upon which the roundup was to be held. Annually, at an early meeting of the Stock Growers Association the roundups were planned for each range, a roundup foreman or captain chosen and the dates for beginning the roundups selected. All owners, foremen and riders were bound to obey the orders of the roundup foreman, and his decisions were final. At the stock growers meeting held at Warm Springs (Saratoga) March 29, 1881, the ranchers agreed, "That we follow the directions of the captain, and any person refusing to obey such orders be excluded from all privileges of the Round-Up"... (Carbon County Journal, 2 April, 1881).
>
> The Spring roundup started soon after the first of May, after the cattle had shed their winter hair and their brands could be easily read, and after the horses had "fleshed up" so they could be ridden. Essential parts of the outfit on every roundup were the grub wagon and bed wagon. The latter held the bedrolls and all extra equipment needed on the roundup. The "cavvy," which on the L7 usually consisted of around one hundred and

> twenty-five horses, eight or nine mounts to a man, was driven to camp before breakfast by the horse wrangler.... The various outfits taking part in the roundup camped a quarter to half a mile apart in order that the horses would not become mixed. The foreman of the various outfits would gather with the roundup captain in the evening and lay out the work for the following day. All the outfits would gather after breakfast and the roundup foreman would assign the tasks and the men would scatter to their appointed jobs. Dinner and supper came at irregular intervals, whenever the job was finished or such portion of it that the men could leave without holding up the work.... Frequently the cattle had to be held in a herd at night, and this necessitated night riding, two men in four shifts. The L7 outfit on roundup usually consisted of eight or ten "cowpunchers," a cook, day and night horse wranglers and three or four "reps." The "reps," or representatives, were men from other ranches whose cattle were ranged near enough to become mixed with L7 stock. During the roundup period each ranch would send "reps" to the other nearby roundups to be on the lookout for their stray stock. These men also helped in the roundup and thus augmented the regular men....
>
> The chief work of the roundup was to gather into herds all the cattle that could be found. This necessitated riding all hills, valleys, arroyos and "draws," box canyons, stream beds and the level range. Once the cattle were rounded up the real work began. Each outfit would "cut out" from the herd the stock bearing its brand. Calves were credited to the brand carried by the mother cow, and were branded accordingly. All other unbranded stock were promptly branded by the outfit to which they belonged. Mavericks, calves and other stock of unknown ownership were branded with an "M" on the left jaw and later sold for the benefit of the Stock Association.

Brayer notes that the three major ranches of the Little Snake River and vicinity (including the L7) were generally opposed to stock associations, especially as they grew strong and powerful.

> Under the association all mavericks found at the spring roundup were "jawbranded" and then sold to the highest bidder. During the winter small ranches took all the mavericks they could find. This system naturally led to rustling and numerous cattle wars. The strange thing about this was that the rustlers would steal from the association members and not harm the herds of non-association members living in the same area (Brayer, 1943, p. 31).

After the fall roundup, the cattle were selected for market. The stock were driven to railroad yards at Rawlins, Fort Steele, Walcott, or

Medicine Bow, depending on grass conditions en route and the condition of the stock yards. L7 cattle were normally consigned to Chicago, but not infrequently they were sold en route at Omaha or Kansas City, if those markets were good.

## Woolies on the Range: The Sheep Industry

Sheep raising in Carbon County and throughout Wyoming, like cattle ranching, can be traced to early frontiersmen and to emigrant travelers on the Oregon and Overland Trails. But it was many years before an active industry was established.

> Wyoming...provided a highway for sheep travel long before it attracted flocks to its ranges. A century ago small bands were crossing it enroute to Utah and Oregon, and with the advent of the [eighteen] fifties the great drives to California commenced. By 1858, however, flock movement across the Territory was declining. The Civil War was nearly over before it regained important volume (Wentworth, 1948, p. 308).

One impetus to the development of the industry following the Civil War was discussed in a report by the U.S. Commissioner of Agriculture in 1862, wherein it was estimated that the cost of keeping sheep was only half as great in the West as in the eastern states. Land values in the West were low, flock investments minimal, expenses small, and grass was free. Many Confederate and Union soldiers, alike, were enticed west to raise sheep (ibid.).

Carbon, Laramie, and adjacent Albany County (the Laramie Plains) were especially attractive to sheepmen, for there were found some of the best range lands in the entire Territory. Sheep industry historian, Edward N. Wentworth, describes an environment favorable to sheep handling: "The elevation varied from seven to eight thousand feet and the undulating plains ran back into the hills and breaks, providing shelter as well as suitable grazing grounds during stormy wintry weather" (ibid.). The first sheep to locate in Albany County were in a herd established there in 1870. Over the next decade, sheep raising grew alongside cattle-ranching to be a major economic endeavor in the region. Much of the attraction was the proximity of the railroad.

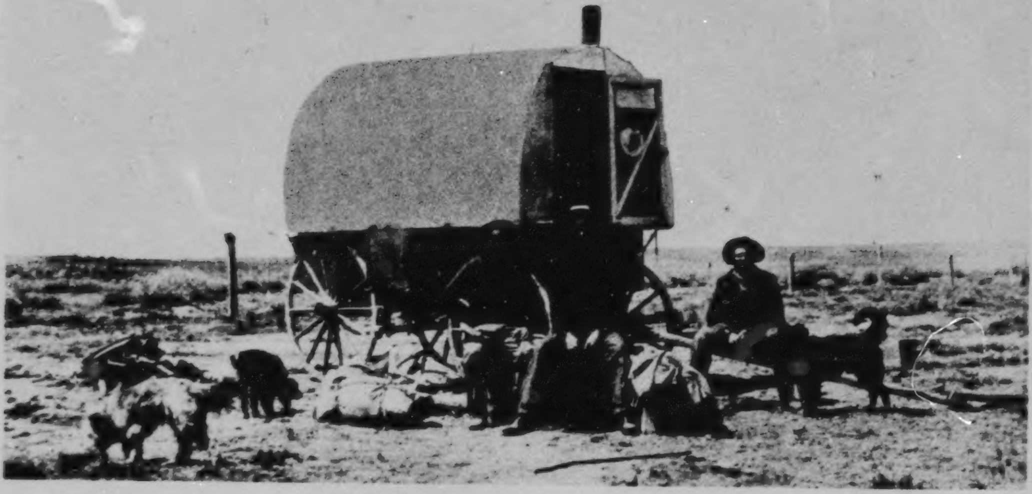

Fig.11. One of the original sheepherder's wagons invented in Carbon County, Wyoming, and still seen on the range today.

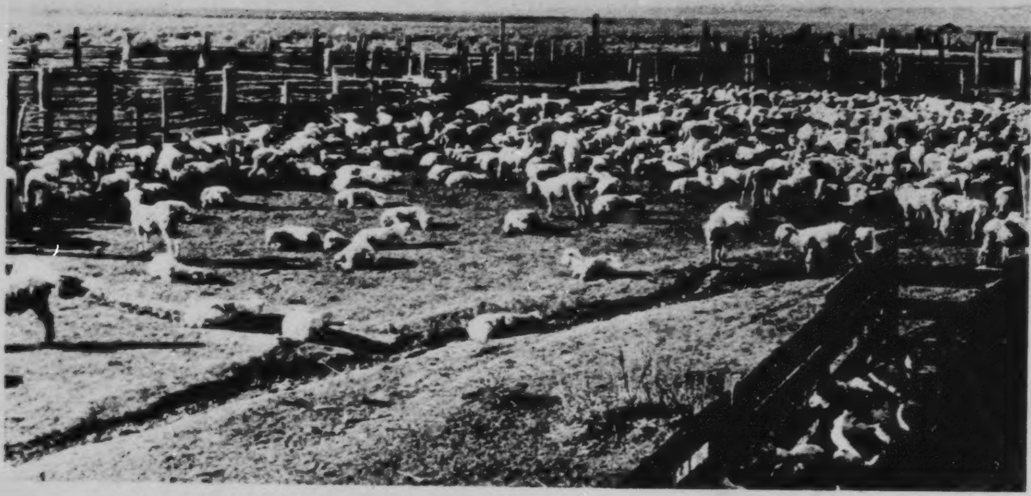

Fig.12. Freshly sheared "woolies" in Carbon County.

> Sheepmen began to realize, as the seventies closed, that the marketing facilities of the Union Pacific multiplied the possibilities of production all across southern Wyoming.... By 1880 almost all of the sheep in the Territory were flanking the Union Pacific rails (ibid., pp. 314-315).

The 1880 census showed a total of over 450,000 sheep in Wyoming, approximately 80% of which were found in the southeastern counties (Carbon, Albany, and Laramie).

At the start of the 1880s, few sheepmen using Carbon County ranges were actually resident within the county. Instead, many were headquartered in neighboring Albany County. The earliest of the larger Carbon County sheep operators was Ike Miller, whose first flock was registered in 1875. After 1881, he went into partnerhsip with Joel Hurt and developed an extensive sheep empire. By 1882, 16 sheep outfits were registered within the county. Among them were Robert Taylor, Wyoming's largest sheep operator in 1880, and other historic sheepmen such as Frank Hadsell, George Ferris, William Savage, Walter Savage, Richard Savage, and L. Stockwell. In a few years,more famous operations were established: Mahoney and Startzel, Thomas and John Cosgriff, Fred Kindt, Smiley and Foster, Peter Christiansen, Robert Jack, Geddes and Hemphill, the Johnson brothers, and others.

Fred Kindt's range covered much of the mountainous region now encompassing the southern part of School District No. 2. Kindt's headquarters, established in 1885, were at Rawlins. His flocks, totalling 2,500 head, were ranged east of the Pass Creek-North Platte River junction during the winters, and in the Snowy Range, farther south and higher in elevation, during the hot summers. For years, this range was named after Kindt, although it has changed hands several times this century.

The Cosgriff brothers, Thomas and John, owned one of the very largest, and eventually the most prosperous, of the early sheep outfits. At the peak of their career, they had 125,000 head of sheep, as well as an extensive mercantile and banking empire. They first operated around Fort Steele in the early 1880s, but moved to Rawlins in 1885. Their winter range was on the "checkerboard" lands adjacent to the Union Pacific Railroad which included the site of the present-day oil refinery town of Sinclair. Summer range took in southern Carbon County and adjacent pasture in Colorado's northern counties of Routt and Moffat.

> Their flocks ranged all the way from Rawlins to Copperton, to Encampment, Fort Steele, and Rock River, and later out toward Rock Springs and Opal [in Sweetwater County]. At each of these points they maintained supply houses for their employees and hands. These gradually were developed into a series of twelve to fifteen chain stores, serving other ranchers and operators, and became a pioneer mercantile system in Wyoming that finally extended as far as Salt Lake City (ibid., p. 318).

The Cosgriffs were also pioneer bankers. Their first bank, at Rawlins, became the forerunner of 27 banks scattered throughout Wyoming, Idaho, Utah, and Colorado. Within the sheep districts of southern Wyoming, they operated from Rawlins, Laramie, and Encampment, financing sheep outfits widely in the territory. Among their financees was L. E. Vivian, whose descendants still control much of the former Cosgriff sheep range lands.

Two nationalities dominated the early sheep raising history of Wyoming: the Scotch and the Irish. It was common practice, apparently, for successful men of these nationalities to help others of their countrymen into business, and a number of sheepmen owe their start to successful predecessors. Among the Scotch was Robert Taylor, who, in 1880, was the largest sheep operator in Wyoming, based in Rawlins. Among the Irish were two prominent large operators, Pat Sullivan and John Mahoney, who at the peak of their careers operated flocks of 50,000 to 60,000 sheep apiece. Sullivan's range extended across northern Carbon County into adjacent Natrona County, and today the Sullivan ranch, near Shirley Basin, is one of the larger outfits in the region.[27]

Climatic disasters, as well as political and other economic considerations, adversely affected the sheep herding industry in Wyoming, just as they had influenced dramatic change in the cattle industry. A severe winter in 1876, and a drought in 1880-81, discouraged many sheepmen from continuance in business. But conversely, the disastrous weather of 1886, which brought the cattle boom to an end, encouraged many cattlemen to turn to sheep raising. Wentworth (1948, p. 316), citing Wyoming agricultural statistics of the time, writes that there were 900,000 cattle in Wyoming

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[27] Pat Sullivan, although Irish, was a Republican. With the death of Wyoming's famed U.S. Senator, Frances E. Warren, Sullivan was appointed to fill out his term in Washington.

Territory in 1886, compared with only 875,000 sheep. A decade later, the number of cattle was reduced to a mere 300,000, while at the turn of the century, sheep numbered 3 1/3 million.

The national depression of the 1890s also contributed to drastic changes in the Wyoming range industries, though perhaps more adversely among beef producers than among wool growers. Wyoming's first state governor, John E. Osborne, a sheepman from Rawlins, maintained at the time that he and the sheep industry in general were doing well. In part, the sheepmen had an advantage in their extensive use of free public lands (Larson, 1965, p. 296).

In 1894, the passage of the Wilson-Gorman Free Wool Act under Democratic guidance in Congress was decidedly disastrous to both the beef and wool industries. In 1897, tariffs were reinstated in the Dingley Tariff, and the range industries recovered. The Dingley Tariff was strongly supported in Congress by Wyoming Republican Senator Francis E. Warren. This tariff assisted both the sheepmen and cattlemen by placing substantial import duties on raw sheep wool,as well as on cattle hides. T. A. Larson, state historian, places great emphasis on enactment of this tariff as a decisive point in the development and re-establishment of a strong range industry (1965, pp. 346-347). At the same time, a significant impetus to Republican politics in the state was founded in the opposition to the Democratic sponsored free wool schedule (Wilson-Gorman Free Wool Act of 1894), and at the same time, certainly, suspicion and fear of federal government interference in the range economy was strengthened (see Larson, 1965, pp. 262ff., 295n.).

Tariff on wool has long been a primary unifying political theme among the sheep operators. Even prior to the establishment of a viable wool industry in the West and in Wyoming, eastern sheep raisers were concerned over the effects on their livelihood of free trade, varying levels of tariff rates, and discrepancies between protection for the manufacturer and the wool grower. Their concern led to the establishment of the National Wool Growers' Association in the 1860s. This association participated in the development of a wool standard in 1867 and in the establishment of a tariff commission in 1882. Ups and downs in the history of the industry can be directly correlated with enactments and relaxations of wool tariffs over the years (see Smith, 1926; Wentworth, 1948).

Just prior to the turn of the twentieth century, the Wool Grower's Association diminished in importance on the national level and was not fully revived until 1901. A primary sheepherder's concern at that time was the national railroads which were the primary shipping agents. Laws affecting interstate commerce were strengthened to deal with these problems.

In 1905, the Wyoming Wool Growers' Association was organized under the auspices and direction of members of the State Board of Sheep Commissioners. Its first president was Dr. J. M. Wilson, president of the state board. A chief task of the association was to rid the state of the disease called scab, as well as to control predators and to regulate the use of state forest lands. A resolution was passed urging all state forest lands to be reserved for Wyoming sheepmen only, restricting their use by out-of-state grazers. Wentworth reports that "since this was the formative period for many government programs--especially in the national forests, predatory animal control, and disease eradication--the Wyoming state association has held a closer individual relation to federal policies than any other association not national in scope" (1948, p. 589).

## Water: The Essential Ingredient

The most essential ingredient in the successful development of the range industries (discussed above), and of the mining and energy development industries (below), as well as of the several other economies of Carbon County (logging, tourism, and recreation), is water. The fact was recognized early, and water rights were not only among the first to confront the lawmakers of the new territory, but have been in the forefront of all industrial and economic development since.

Water was one of a rancher's first concerns. Among his first actions, upon settlement, were to obtain land titles to property containing a water source, to dig ditches by hand and with horse scrapers to bring water down from the hills and streams, and to file water appropriation rights in order to safeguard his investment. A large number of irrigation ditches were built criss-crossing the land, some of which date to earliest settlement (see Burns, *et al.*, 1955, pp. 681-697).

Ranchers developed a kind of reverence for water, a reverence which they still hold when they speak of winter snow pack, the spring runoff, occasional summer rains, stock waterholes and irrigation ditches, and long dusty rides trailing cattle and sheep. Much of that reverence is for the rivers themselves,

> the rivers of early-day cow country, their perils, their life-giving powers and their personalities. It was along the rivers that the ranches were established, the towns grew up. The trail drivers...guided by the stars and by the rivers. To speak the best of a man, cowmen said: "He's a good one to ride the river with" (Frink, 1954, p. 21).

Initially, water rights were on a first-come basis, but as settlement increased, water rights became a serious issue. The first comprehensive law establishing procedures for the appropriation of irrigation and stock water (the primary concerns) was passed by the Wyoming Legislature in 1886. It replaced an earlier statute of 1875, which had maintained the common law principle of riparian rights. By the 1886 law, irrigation districts were defined, and a water commission was appointed by the governor. Water appropriation was conditioned by the principle of prior appropriation for beneficial use. District courts settled questions of priority of appropriation (Larson, 1965, p. 147; Wyoming State Engineer's Office, 1971b, pp. 8-9).

Irrigation and water rights were important issues at the 1889 Wyoming Constitutional Convention. Concern for water regulation provided what "little originality" is found in the Wyoming Constitution (Larson, 1965, pp. 253ff.; see Article VIII of the Wyoming Constitution). One of the state's major achievements was adopting a complete water control system for which one writer has called Wyoming "the law-giver of the arid region" (W. E. Smythe, 1900 and 1905, in Larson, ibid.), although in actuality, Wyoming shares with Colorado the leadership in water systems' procedures which other western states have copied (Larson, ibid.).

All of Carbon County School District No. 2 falls within the Platte River Basin, incorporating much of the upper North Platte and Medicine Bow Rivers and their tributaries. The regulation of water availability and of overall water rights in this vast river basin is an integral part of the comprehensive Wyoming State Water Plan (Wyoming State Engineer's Office, 1971a, 1971b, 1973).

In 1904, the first federal water project in the Platte River Basin authorized the construction of the Pathfinder Dam on the North

Platte River near the Carbon-Natrona County line. The Pathfinder Dam was completed in 1911, and was followed by two others, the Seminoe Dam in 1939 and the Kortes Dam in 1951, both within Carbon County. Others have been constructed downriver in other counties. All of these dams provide irrigation, power production, and stream regulation, and secondarily, recreation. The dams are important control mechanisms for the appropriation of intra- and interstate water rights. Interstate water rights to the Platte were further legislated by the U.S. Supreme Court decrees of 1945 and 1953. Wyoming, Colorado, and Nebraska are parties to these water compacts which impose upper limits on irrigated acreage, irrigation storage, and other facts of water use on the North Platte. (See Fig. 1 for the dams in Carbon County.)

## The Wealth from the Earth: Mining and Energy Development

### Prospectors on the Land

Prospecting and mining have long contributed to the richness and aura of life in Carbon County. Today, in the 1970s, the mineral and energy development industries, dating to the late nineteenth century and based on coal, oil, gas, and more recently on uranium, are the hope for continued prosperity and growth.

Prospectors roamed the land prior to the influx of pioneer ranchers and well before the coal fields of Hanna and Carbon were first exploited. They contributed, in fact, to early settlement and to the growth of large-scale mining developments. Initially, however, they were a direct link between the era of the rugged frontiersman and the era of the settling pioneers, railroaders, coal miners, and oilmen.

Seekers of gold and other precious metals are known to have scoured much of the country in the 1860s and 1870s. In the last quarter of the nineteenth century, their kind had a field day in Wyoming. It was a time when gold and copper, in particular, were on everyone's lips, and when the "get rich quick" promoters made fools of many an investor. The mountain regions of the county--the Seminoe and Ferris Mountains of the northwest, the Medicine Bow Range at the east and southeast, and the Sierra Madre at the south--attracted the most attention. There in the hills mineral outcrops were easily found, streams were searched for a glimmer of paydirt, and many a fabled Mother Lode was sought, often in vain. Overnight booms and busts were common, although a few semi-permanent operations did develop.

The era of ardent prospecting was relatively short-lived, but it left behind place names reminiscent of its day, of the boom towns, mining and oil camps, and of geological formations discovered in the course of the prospectors' wanderings: Grand Encampment, Gold Hill, Rambler Mine, Quartzite Peak, Granite Ridge, Iron Springs, Alkali Flats, the Sunday Morning Mine, Chalk Mountain, and many more.

Accounts of early mining-prospecting life are few, but those which do exist (mostly in old newspapers and in a few novels) tell of an interesting but rugged lifestyle and reveal some of the emerging values and attitudes toward both human and mineral resources. One such early account was published on June 11, 1873, in the Laramie Independent, describing the work of hopeful and hardy men in the Seminoe-Ferris Mountain region of Carbon County. It reveals a feeling of insider versus outsider in the quest for the big pay-off, and a feeling toward the development of the land resources in more permanent, settled ways:

> Robert Burkhart arrived in town yesterday morning from the Seminoe mining district where he has been for the last week investigating its resources and from him we obtained the following items:
>
> Hugus, Bennett & Co. have a ten stamp mill in operation, from which they claim to realize $25 per day. They find the capacity too small, however, and propose to enlarge it and get new and improved machinery. The Mammoth Lode furnishes ore for this mill containing free gold.
>
> A Mr. Burt has an Arastra erected for the purpose of testing ore, which is one horsepower and has been of great benefit to the miners....
>
> Great energy is displayed among miners and prospectors in developing their property. One company, composed principally of Laramie men, has adopted the proper mode of mining: that of running crosscuts and adits. One turn-in is already in 138 feet and others are started, so that a greater depth will be reached at a less cost to the owners by this mode. Then by sinking a shaft, and when the property is once developed in this wise, greater access to the vein matter is obtained and no pack animals are required for transportation, the ore being deposited at the mouth of the tunnel at the base of the mountain.

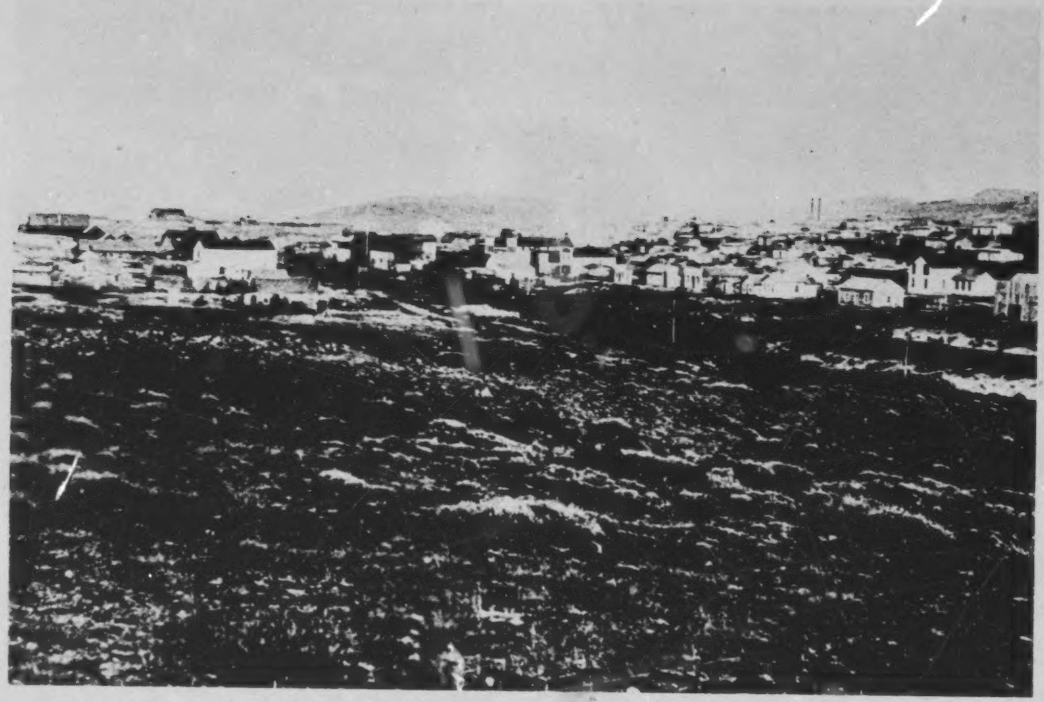

Fig.13. The old town of Carbon, Wyoming, site of the first coal mines of Carbon County, during its heyday, c. 1900.

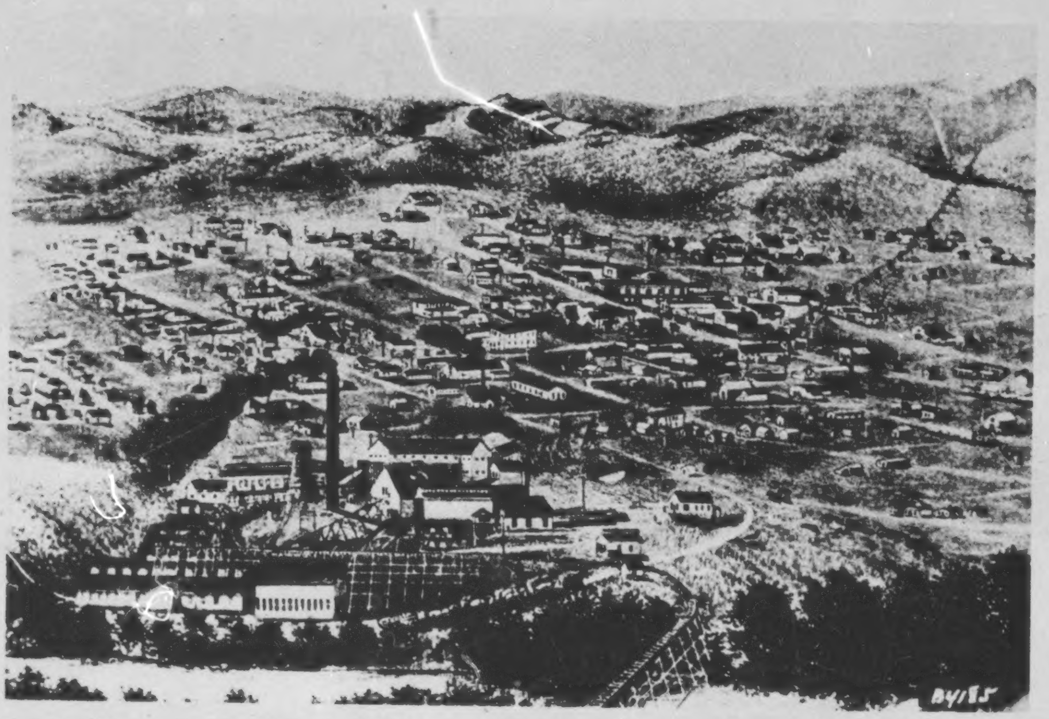

Fig.14. Encampment, Wyoming, during the heyday of the copper boom (early 1900's).

> A Laramie company intended constructing a mill so soon as the body of ore is reached.
>
> The Elgin Company, composed of capitalists from Illinois, have a shaft 60 to 70 feet deep and an adit on a line of crevices about 170 feet deep on their property. Yet the workmanship does not compare favorably to that of the Laramie Company. The characteristics of the ore of this company's mine, thus developed, are galena, and a pretty strong vein at that. A large body of ore is anticipated upon further development....
>
> West of the Ferris District large herds of buffalo are seen. Vast quantities of wild game, such as elk, deer, bear and mountain sheep are seen near camp. Near Seminoe, Mr. Hunt has been plowing and planting and now has a perfect little paradise of a home. Other parties are engaged in the same business and there are already about twenty houses there, inhabited by men, women and children. A number of ranches have been taken up and stock growers have been there in search of good winter quarters for their herds.
>
> We say, go in boys. "faint heart ne'er won fair lady." That you may all succeed in becoming millionaires is our earnest wish.

## The Encampment Copper Boom

The most notable early mineral prospects in the region of School District No. 2 were along the upper North Platte and Encampment Rivers, in the general vicinity of the Medicine Bow and Sierra Madre Mountain Ranges. Larson (1965, p. 299) reports that gold mines were developed in the Medicine Bow Mountains southeast of Saratoga at Brush Creek in 1890, at Gold Hill in 1890 and 1891, on Douglas Creek in 1893, and in the Sierra Madres near Encampment in 1896. But prospecting had begun much earlier there for gold, silver, and copper. The latter mineral was destined to bring great wealth and fleeting fame to the Encampment region at the turn of the century.

> Interest in the mineral wealth of the region was demonstrated as early as 1865 when prospectors began to look for gold and silver. Some prospectors wandered in from such places as Colorado, but for the most part the gold-seekers were cowboys, ranchers, and others who were untrained, professionally, for the task of locating and identifying minerals. In 1868, the first mining claims in the Sierra Madres began to be located and from that

> time forward also, reports issued forth of copper discoveries. In 1869, the famous naturalist Louis Agazzis spent six weeks in the area of Grand Encampment investigating its natural features, especially the geology of the area, but he was not favorably impressed by the possibility of mining (Junge, 1972).

A great deal of mining, however, was in the future for Encampment. In 1872, five quartz veins were discovered near the Continental Divide, and work began on them in 1876. Meanwhile, in 1872, a large quantity of copper-bearing float was found just west of the Continental Divide, south of Bridger Peak (near the future town of Rambler). This discovery was worked into the Doane-Rambler copper mine,which became one of the main producers during the coming copper boom.

The boom rightly began with the discovery of another copper lode on the west side of the Continental Divide in 1897 by Ed Haggarty. This find soon developed into the Rudefeha,[28] or Ferris-Haggarty mine, which became the largest producer of the area. Over $2 million worth of copper ore was mined from the Ferris-Haggarty during its short lifespan. Early in the twentieth century, this mine was listed as number 112 in order of importance among the world's most productive copper mines. Much of the history, the fortune, the glory, and the eventual decline of the Grand Encampment copper district is directly related to the development and fate of the Ferris-Haggarty.

In 1897, concomitant with the Ferris-Haggarty discovery and a strike of gold along Encampment River, the town of Encampment was plotted. The Encampment district attracted numerous fortune-seekers, and soon a prosperous little town was growing. A number of satellite mining towns, now ghost towns, soon dotted the mountains on both sides of the Continental Divide. Among them were Battle, Rambler, Dillon, and Copperton.

In 1901, the population of Encampment numbered approximately 300, and there were hardware stores, meat markets, blacksmiths, lumber yards, livery stables, hotels and restaurants, and two newspapers. Optimism about Encampment's future ran high, and some people predicted it would soon become the "Pittsburg of the West," another Denver, or perhaps even the new capital of Wyoming. Within a decade, however, Encampment's hopes were smashed with the financial failure of the mines.

---

[28] It was called "Rudefeha" after the first two letters of the four locaters, J. R. Rumsey, Robert Deal, George Ferris, and Ed Haggarty.

A number of reasons for the mine failure have been given, among them fluctuations in the national copper market, overcapitalization, problems with mine equipment, transportation difficulties, bad weather, and mine fires. The Ferris-Haggarty mine changed ownership several times, although its primary promoter, George Emerson, remained a key figure. In 1909, the Penn-Wyoming Company, one of a series of owners, sold out to United Smelters, Railway and Copper Company for $10 million. A year later, United Smelters was bankrupt, and the mine was closed.

In the meantime, a large and cumbersome mine and smelter operation had been developed. Considerable capital had been attracted for investment, and a smelter, a 4-mile wood and iron water pipeline to supply the power generators, and a 16-mile aerial tramway from the mines were built. The tram began at the mines on the west side of the Continental Divide, climbed over a 10,700 foot pass, and descended all the way to the smelter site on the banks of the Encampment River. It was a remarkable feat of engineering for its day, and although very little of the tram remains, parts of it, and a wealth of other copper boom memorabilia, are preserved at the Grand Encampment Museum in Encampment town. The copper mines gave incentive to the railroad to build a spur line from Walcott to Encampment through Saratoga, but the railroad's completion came too late to benefit much from the mines.[29]

Mark Junge (1972), a contemporary Wyoming historian, has attempted to place the Grand Encampment copper boom in perspective:

> From time to time hopes have been expressed by the people of the area concerning the possibility of exploiting once again the mineral wealth of the

---

[29] The social and economic history of the Grand Encampment Copper District has been well documented in both published and unpublished form. The vertical files at the Wyoming State Archives and Historical Department in Laramie, and at the State Recreation Commission in Cheyenne contain a wealth of information. So do the files at the Grand Encampment Museum. Mrs. Vera Oldman and her staff have been particularly helpful in allowing access to original materials at the museum.

This brief account of the Encampment copper boom is condensed primarily from the most thorough history of Grand Encampment written so far, the Statement of Significance by Mark Junge (1972), which accompanies the nomination of the Grand Encampment Copper District to the National Register of Historic Places.

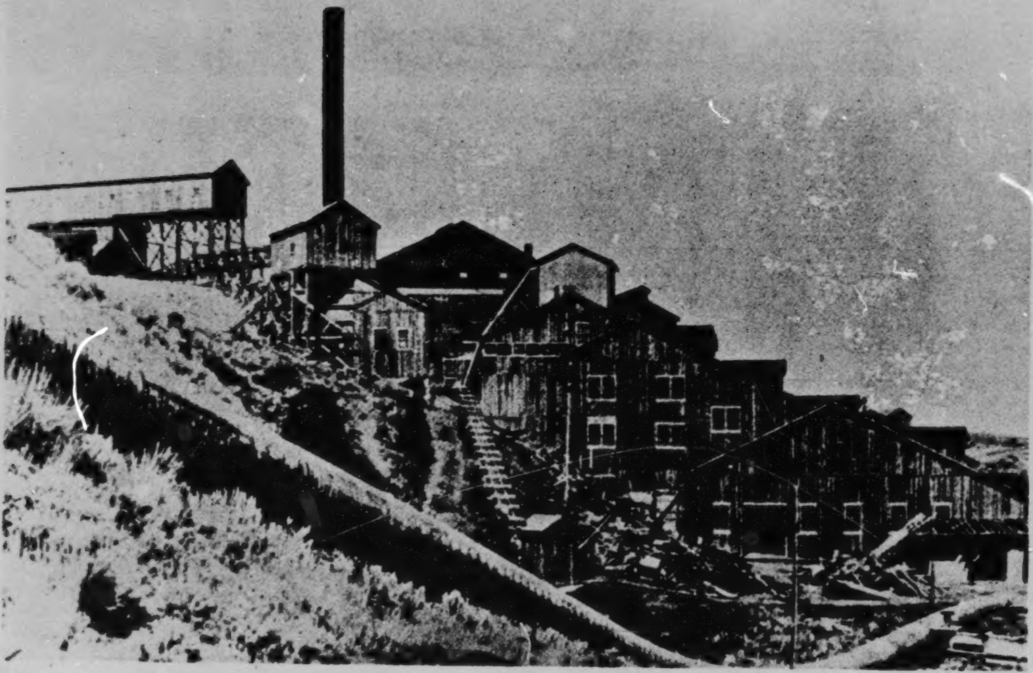

Fig.15. The Encampment Copper Smelter, 1907.

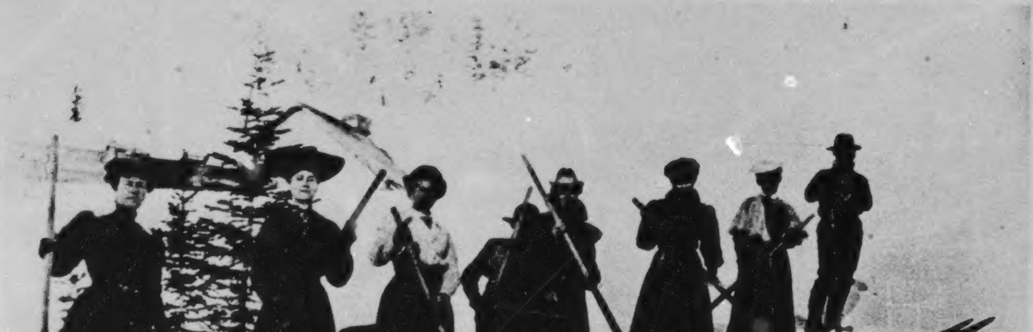

Fig.16. Women of Battle, a copper boom town near Encampment, c. 1904.

> region, but no serious mining developments have occurred on the scale to which they once existed. Today the principal economic interests of the region are evident in agriculture, recreation, and tourism. The rich potential for hunting and fishing which exists in the Grand Encampment region today is similar to that observed by the very first people to frequent the region.
>
> ...In relation to local history, the era of Grand Encampment copper is important in that, despite its transitory existence, it not only changed the physical appearance of the region, but left a state of mind.... Within the patterns of Wyoming state history, [its] place...surely must be an important one.... How much the economic, political, and social institutions of the State were affected by the Grand Encampment copper boom needs to be more fully investigated. The boom did take place during a critical period in the development of the state. Admitted to the Union in 1890, Wyoming had barely experienced the problems or benefits of statehood during the time when the Grand Encampment copper boom was in full progress.
>
> Concerning the wider historical perspective, it has been observed that many of the same conditions which affected the American copper industry during those hectic years at the turn of the century also affected Southern Wyoming copper mines....
>
> ...it may be seen at a glance that it is necessary to view the history of Grand Encampment copper in relation to at least the general economic situation in America, if not to that of the world...it is necessary to keep in mind that the Grand Encampment copper boom was not the only one of its particular time period. Both California and Utah, two other large copper producers, were beginning to grow at about the same time....
>
> The Grand Encampment story has many of the basic elements, such as the "boom and bust" syndrome, relative to a capsule summary of a particular phase of the economic, political, and social development of the American Far West.

## The Northern Coal Fields

Early explorers and fur traders had noted the presence of coal in Wyoming, but this discovery had little significance until the railroad came through in 1868. The early history of coal mining in the state is completely entwined with the history of the railroad: the railroad was routed through southern Wyoming because of the coal, and the coal mining was made feasible because of railroad demands for fuel and because railroad transportation provided access to remote markets.

The coal of the Hanna Basin of Carbon County was especially attractive. The region had extensive coal beds, eventually counted at 69 more than 3 feet thick, and one nearly 24 feet thick. At first the coal was extracted by means of underground diggings. Only much later, with the development of adequate machinery, did strip mining come into vogue.

The first coal mine in the county (and in the state) was opened at Carbon which was, in 1868, on the main Union Pacific line. The mine was operated by the Wyoming Coal and Mining Company which had leased the land from the railroad and agreed to furnish the Union Pacific with all the coal it needed for "six dollars a ton for the first two years, five dollars a ton for the next three years, four dollars a ton for the next four years, and three dollars a ton for the next six years" (Union Pacific Coal Company, 1940, p. 28).

Nine-tenths of the mining company's stock was held by members of the Board of Directors of the Union Pacific, and it was to their benefit that the railroad had agreed to these "artificially high" prices of coal (Larson, 1965, p. 113). At the same time, other producers of coal (not owned by the Union Pacific directors) were charged discriminatory hauling rates by the railroad.[30] Such practices brought increasing government criticism. Consequently, in 1874, the Union Pacific took full possession of the coal mines.

Production of coal increased steadily during the early mining years. During the first year, 6,560 tons of coal were mined, and in the second year, the yield was increased by five times. Increases continued for the next 20 years, and eventually seven mines were opened.[31] The safety record of these mines was fairly good. There was a gas explosion in the Number 1 Mine in 1869, but it occurred on a Sunday when no men were underground. That same year, spring floods caused a cave-in and flooded the mine, but no lives were lost and after a few months the mine was back in production. The major disaster at Carbon occurred not in the mines, but in the town.

---

[30] The Union Pacific charged $7 a ton for its coal in Cheyenne, for example, but charged other producers $6 a ton just to transport the coal to Cheyenne (Larson, 1965, p. 114).

[31] Figures for the state of Wyoming show 6,925 tons in 1868; 208,222 in 1875; and 527,811 in 1880 (Larson, 1965, p. 113).

Like boom towns everywhere, Carbon grew very quickly. Much of the housing was makeshift. Some miners simply dug caves into the side of ravines and covered the fronts with boards and earth. Each nationality clustered its houses together, and there were groups of Finns, English (called "Lankies" from Lancashire), Greeks, Italians, Poles and a five-cabin Chinatown in the mining community (Grace, 1974).

Water was hauled in railroad tank cars from Medicine Bow, stored in a large cistern and sold for 25¢ a barrel. One night in June of 1890, someone knocked over a kerosene lamp and started a fire which destroyed half the town. But Carbon was quickly rebuilt; it was incorporated that same year. The following year Carbon State Bank, one of the first in the state, was opened (Ellis, n.d./a). By 1895 Carbon had, besides the bank, an opera house, horseracing track, telegraph and telephone service, and a population of 2,000 (Grace, 1974).

There was labor unrest throughout the early history of the mines, and the Union Pacific dealt severely with any labor problems. The Knights of Labor, a forerunner of the United Mine Workers, began organizing during the 1870s, but following a strike in 1871, all strikers were fired and replaced with Scandinavians and the wage was cut to $2 per day. On this and other occasions, troops were called into maintain order at the mines. In 1875, there was another strike. Wages had been cut (from 5¢ per bushel to 4¢ per bushel), but the company had refused to cut prices at the company store. The strike was to restore the previous wage of 5¢ per bushel, but once again strikers were fired and replaced--this time with Chinese. The strikers then offered to go back to work for 4¢ per bushel, but were refused (Larson, 1965, p. 114).

Initially, most of the Union Pacific miners were from northern Europe, but the company increasingly brought in Chinese workers until eventually they outnumbered white miners in the state. The 1876 state convention of the Republican party (supposedly Union Pacific-dominated) resolved "the introduction of Chinese labor into this country is fraught with serious and dangerous consequences" (ibid., p. 115).

Serious consequences did occur--not in Carbon, but elsewhere. In 1885, white men at Rock Springs killed 28 Chinese, wounded 15 others and chased several hundred out of town, destroying their property. The riot was traced to the strike of 1875 and the Union Pacific's use of Chinese strike breakers (ibid.).

Sixteen men were arrested, but the grand jury brought in no indictments. There was considerable sympathy for the white workers in other mining towns across the state. In a protest against continued use of Chinese miners, 500 men at Carbon (mostly Finns belonging to the Knights of Labor) went out on strike in 1885. The strike lasted two months, but there were no concessions by the Union Pacific, so the strikers went back to work.

Carbonites were apparently unaware that the coal, their only source of income, was rapidly being depleted, but in 1891 it was reported that "the working places for men were becoming very scarce" (Union Pacific Coal Company, 1940, p. 41). Throughout the 1890s, Number 2 Mine was the only one in operation; then in 1899, as Number 2 was beginning to play out, Number 7 Mine was opened, but the coal there was of inferior quality. A better route was found for the Union Pacific main line, and the track was rerouted through the coal fields of Hanna. Number 2 Mine closed in 1900, Number 7 closed in 1902, and suddenly Carbon was a ghost town.

Other coal fields in the vicinity were explored and mined, but the resultant towns or mining camps, such as Dana, appeared briefly, then disappeared. The next coal towns of any lasting significance were Hanna, and its smaller neighbor, Elmo.

Many of the people who left Carbon went to Hanna, where the coal was of even higher quality and the mines had not yet been exhausted. Prospectors found coal there in 1889, and by 1892, the mines were in operation. The vein first mined was 20 to 32 feet thick and predictions were that "generations to come will not work them out" (Rawlins Republican-Bulletin, May 2, 1939, p. 76). In January, 1891, 11,770 tons of coal were shipped from Hanna; February's yield increased to 14,665 tons.

A town was established for the Hanna miners.

> Hanna began as a tent town in 1889, streets were laid out in 1890, a source of good drinking water was established in the form of a 19-mile pipeline from Rattlesnake Creek, and in 1899 the mainline of the

> Union Pacific was rerouted through Hanna. Despite all this investment by the company, the inhabitants thought of Hanna as a temporary camp, with Carbon, some 12 miles to the east, being the real community. Indeed, old-timers from Hanna may still be laid to rest at the Carbon cemetery (Nellis, 1974).

In 1895, all houses were provided with electric lights. Hanna soon boasted many permanent buildings--a depot, saloon, school, company store, houses, and boarding houses. Hanna's population increased to 1,209 by 1905 and remained stable for the next 40 years (DeHaan, 1972, p. 35). Neighboring Elmo, meanwhile, grew into a small town with considerable Finnish population, providing part of the work force for the mines.

There were two major mine disasters which occurred in the early years of Hanna's history. In June of 1903, an explosion of Mine Number 1 killed 168 miners (Ellis, n.d./a). In 1908, a group of 19 officials were inspecting the same mine, which had recently been reopened, when another explosion occurred. A crew of rescue workers entered the mine, hoping to save some of the entrapped men, but there was a second explosion and all were killed. The Union Pacific compensation was $800 for each of the 33 widows, plus $50 for each fatherless child (DeHaan, 1972, p. 44).

Hanna's mine disasters are said to have had some positive effects on the entire Hanna-Elmo community, resulting in mining practices which were safer and more sound environmentally and promoting a sense of brotherhood and community spirit. Certainly, the community with its base in "King Coal" continued to thrive. Although mining remained the only important industry, there was a variety of service and social facilities available to residents in the 1930s. At that time, Hanna had a hospital, bank, beauty parlors, stores, athletic teams, schools, five churches, and eight lodges. Building continued into the 1940s and early 1950s (DeHaan, 1972, pp. 46-50).

### Oil Field Development

Oil development in School District No. 2 has been almost entirely the province of Marathon Oil (formerly Ohio Oil, an offshoot of Standard Oil). There were two major developments: the Rock River field which opened in 1916 and the Kyle field near Medicine Bow which began in 1935.

The Rock River field, or McFadden camp, has been described as one of the most romantic of Marathon Oil Company locations.

> High in the hills of the Wyoming Continental Divide, it snuggles in the center of a saucer-shaped valley greened by the Rock River. All about lofts the mountain grandeur. Two miles east lie twin lakes which are virtually a private trout preserve for the camp. Elk and deer haunt the high lands. Only two miles south, now devoured by a spate of cottonwoods, huddles the forgotten town of Arlington, once an important stop on the Overland Trail. A dilapidated ghost, its faded post office sign creaks rustily on untended hinges. The region is an explorer's paradise, but it has one peril. Along the river are oozy quicksand bogs, concealed cunningly by surface grass (Spence, 1962, p. 105).

The Rock River Valley had been homesteaded since the 1860s by ranchers. Oil was discovered in 1916 and the first well (which produced initially 50 barrels of oil per day) completed in 1918. During the early years, there were 14 drilling rigs operating at the same time. Men worked 12-hour shifts, and eventually the number of wells totaled 117.

The company built a town to house the workers and their families. The population rapidly grew to 400, and throughout the 1920s a number of amenities were available, including a school, Sunday School, blacksmith shop, garage, machine shop, cookhouse, amusement hall, grocery store, post office, hospital, and golf course (Holloway, 1969, p. A14). The first high school was established in 1924.

The gasoline plant was constructed in 1920-21. Initially, it separated casing head gasoline from gas. Later it was modified to extract butane and propane as well.

More recently, the history of McFadden has been a history of depleting oil and dwindling population. McFadden High School closed in 1958 (the class of '58 had two students). The company has moved most of its houses to other sites, and most public buildings (except the elementary school and the post office) have closed. In 1969, there were 38 operating wells producing 800-900 barrels per day. Twenty-five people, working in the field and in the gas plant, were on the Ohio (Marathon) payroll. Locals were not optimistic about the future of the town. As Paul Holloway, a McFadden eighth grader, wrote in his graduation address:

> McFadden came to life in vigorous good health and grew, thriving and robust throughout childhood and teenage, to a sedate, productive middle age. It now has entered

> its declining years--sitting in the Rock Creek Valley dreaming of the past. Someday it may cease to exist as a community (Holloway, 1969, p. A14).

Marathon's second development at Kyle seemed an unlikely success. To begin with, the location was remote and the terrain difficult.

> Carbon County, Wyoming, answered well the drillers' complaints that geologists always located on the worst possible terrain. The prospect was only eighty miles from the Continental Divide, in wild country, 7,200 feet above sea level, and fourteen miles across mountains from a highway. All around, except to the east, soared 11,000 foot peaks (Spence, 1962, p. 198).

Also, there was a history of failure in this area. In 1917, 1923 and 1926, "wildcatters" (independents) drilled and were unsuccessful. In 1923 and 1926, they went to a depth of 4,000 feet, losing an estimated half million with each effort.

But Ohio needed a fresh gas reservoir, and it was willing to take some risk. To cut costs and potential losses, it took Standard Oil of California as a partner. A 15-mile road was built, supplies (including gas and water) were brought in, and drilling was begun. In May, 1935, eight hours before the lease would have expired, gas was discovered at 5,500 feet. Seventy-seven feet further, they hit oil. It was predicted that this one well would produce 6,000 barrels per day (Spence, 1962, p. 201).

Kyle camp never developed into a town. Although there were a school and a store for a time, the population never became large enough to warrant having a post office. Currently, the field is under the management of the Rock River office. The company maintains one household at Kyle; other workers commute from McFadden.

## Education and Social Life

In the early community life of Carbon County,[32] the schools served as a focal point for social, cultural, and political interaction. This was as true in the rural hinterland as it was in the towns, although in the towns other institutions and activities such as churches, clubs, and various private establishments, vied with the schools for attention. To a large degree, the schools are still a major unifying agent in the county today, and then, as now, they may be seen as drawing neighborhoods and small communities together in common interests.

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[32] The time period being considered is from territorial days, beginning in 1869, through statehood (1890) and to the mid-twentieth century.

The school system at state and county levels was organized early under the Wyoming territorial system of government. Even before attaining territorial status, Carbon County had been created by the Eighth Dakota Legislative Assembly of 1868-1869. In October, 1869, the First Legislative Assembly of Wyoming convened in Cheyenne to consider the organization of the fledgling territory. Carbon County, as one of the five initial counties, received considerable attention, and late that year, in December, the governor appointed the first officials to establish county government offices at Rawlins, the designated county seat. Governor John A. Campbell appointed two county commissioners (soon raised to three by legislative action), a sheriff, attorney, clerk, and superintendent of schools. There were also a surveyor, assessor, coroner, treasurer, probate judge, and three justices of the peace. The first appointees held their posts from December, 1869, to November 1, 1870, whereupon their offices became elective following a general election on September 6 of that year.

Initially, at the state level, the territorial auditor was appointed ex officio superintendent of public instruction. He was given a small budget and was authorized to supervise all of the school districts in the territory, to recommend uniform textbooks, make reports, and distribute school funds to the counties. At the county level, the county superintendent's duties were

> to divide the settled parts into school districts, apportion the county school tax and other school funds among the several school districts, examine and certify teachers, visit each school at least twice each term, and generally supervise the schools. In each district, a board of directors [trustees] was to be elected, consisting of a chairman, a clerk, and a treasurer. School district meetings in May and October were authorized to determine the number of schools and the length of time each would be taught, select the site of each schoolhouse, set the district school tax (subject to the approval of county commissioners), determine what branches of learning should be taught, delegate any of the foregoing powers to the district board, and transact other school business. The

district board was specifically empowered to hire and pay teachers (Larson, 1965, p. 226; see also Barnhart, 1969, and Wyoming, Territory of, 1870, pp. 219-234).

The first Carbon County Superintendent of Schools, John Kendall, was appointed by the governor. The office of county superintendent lasted 100 years; it was abolished by the 1969 state legislature when state-wide unification of schools was launched. During that century, Carbon County had 19 superintendents, ten of them women.[33]

In the early days of school organization, the Carbon County Boundary Board[34] established 35 elementary school districts for purposes of taxation, administration, and logistics. Many of these districts reflected the developing neighborhoods or "communities" in a loose sense of the word. Within these districts were two types of schools--many one- or two-room rural ranch schools, and a few larger schools in the established towns. Some of the earliest town schools were at Rawlins, Saratoga, and Medicine Bow. By 1883, there were 11 schools in the county, and by 1892 there were 34. By one account, in 1935, when the number of elementary school districts had been reduced from 35 to 26 (plus two high school districts), the number of separate schools within the county was as high as 86 (Knudson, 1937, pp. 55-56).

In 1873, the legislature fixed the minimum school attendance requirements at three months per year for every child between 6 and 18 years of age. But there are indications that this minimum was not well enforced. By 1893, the average number of school days (based on state-wide statistics) was fewer than 90 days per year (Larson, 1965, p. 226, based on Fromong, 1962). By 1935, the average length of the school term in Carbon County was 174.4 days per year (Knudson, op. cit.).[35]

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[33] One Carbon County Superintendent of Schools, Helen A. Irving, served 37 years, the second longest period of service of any county superintendent in the state.

[34] The District Boundary Board was comprised of the county superintendent of schools, the county treasurer, and the board of county commissioners. It was their combined responsibility to divide the county into convenient school districts, and alter, or consolidate, existing districts consistent with certain conditions pertaining to assessed valuation.

[35] Later, the number of days-of-school-per-year was set by state law at 175.

In Carbon County, some of the rural ranch schools operated for the minimum three months annually, usually during the summer months when children could travel safely. Winters were often so severe that many isolated ranches were cut off from all outside contacts. In some instances, children from neighboring ranches would attend centralized summer schools.

One of the first schools known to the residents of the Kortes region, in the north of the county, was a "traveling school." This school moved from one to another ranch every three months, spring, summer, and fall. Another school in that region was held in a log structure which was moved so frequently that the logs were numbered for easy reassembly (Conner, 1964).

From the North Platte River Valley, in the vicinity of Saratoga and Encampment, this "saga" of early rural education has been recorded (ibid.):

> The first seeds of education were sown in a primitive manner. In the beginning the facilities and equipment for youth instruction were modest indeed.
>
> Contrary to much written false propaganda, our Western pioneers, the early settlers of our state, were intellectual men and women with considerable education so when children came to bless their isolated homes instruction and a basic education became a major project.
>
> In the sparsely settled region of the North Platte Valley, and similar areas, there were no graded roads or special means of transportation. There were [initially] no public funds to aid in the problems of organized instruction, so definitely the means and methods were up to the parents. In the late 70's and the early 80's teachers were employed who were willing to reside in the private homes and give rudimentary instruction where the families were able to afford this service.... After the country developed, and the population increased, small schools were established in the country districts. Before too long state and county funds became available and state lands were set aside for school maintenance.
>
> In many locations suitable log houses were erected and regular teachers employed.... The building was usually built log cabin style with heavy wide board floors. Always a cast iron coal or wood stove occupied the center of the room flanked by a box for fuel. A large blackboard usually covered one end of the room, with chalk and erasers. Necessarily there was a desk and a chair for the teacher. Rows of seat desks ran parallel on both sides of the room. At first a dictionary was about the only reference book. On

> each desk were a slate and pencil. Inside reposed an old Barnes or McGuffy Reader with other textbooks. Outside the school house one usually found a horse stable and an out of door toilet. Drinking water was supplied either from a nearby irrigation ditch or from the creek some distance away. Water bucket and tin dipper stood in one back corner.
>
> Happily these rural district schools were quite efficient. The teachers were dedicated to their work and succeeded in their efforts to instruct and inspire. Students did receive a good basic foundation for higher learning. Teachers were able to give personal attention to their pupils which is difficult in larger classes of greater numbers. The subjects generally taught were Arithmetic, Reading, Penmanship, Spelling, Geography, History and Physiology. Spelling was often stressed. Many times students were called upon to choose sides and "spell down." Spelling Bees were popular for party games.

Recounting the old schools in the vicinity of Elk Mountain, Old Carbon, and Kyle, Kathy Wick writes (in Conner, 1964):

> The schools then were only one roomed and in the winter they had a pot bellied stove for a heater. The light was very dim.... Once in every six weeks a few of the teachers would bring his or her pupils to one of the other schools and that teacher would teach all the kids for one day. The men and women would go to one of the houses and visit.
>
> Before Christmas they would choose a play then give out parts to all the pupils. Then at Christmas they would give the play [at someone's ranch house].... This was the main event of the year.
>
> The pupils would ride horses, walk or drive buggies.... The mothers would take turns sending soup or chili. The children would play for awhile then the teacher would call them in [when] the soup [was] hot.

Early Carbon County rural school names reflect peculiarities of place or other unique conditions of their existence, such as the name of a brand, a ranch family, or an ethnic group. Some examples are "Tin Can" school, "Bunker Hill," "Brush Creek," "Wagon Hound,"[36]

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[36] Wagon Hound gets its peculiar name from a creek crossing at which wagons would mire in the mud, settle on rocks, and break the "hounds" (side bars connecting and giving rigidity to the vehicle).

"Beer Mug,"[37] and the "Sullivan" [ranch] schools, as well as the "Dunkard"[38] school and the "Finn" school. One school was located on "Schoolhouse Flats" in the Freezeout Mountains at the north. And there was at least one "Little White Schoolhouse" (near Elk Mountain).

The rural schoolhouse generally served as a community social center where pie suppers, box socials, dances, Christmas pageants, barbecues, and public meetings were held. Beyond that, the schoolhouse

> symbolized the dawn of a neighborhood, and it brought a change into the wilderness air. The feel of it struck cold upon the free spirits of the cow-punchers, and they told each other that, what with women and children and wire fences, this country would not long be a country for men (Wister, 1902).

The operation of the local school districts served, importantly, as a mechanism to educate the people about the operation of local and county government, particularly in fiscal and political matters. District board members, and the voting electorate, had to pass special tax levies periodically to help pay for their schools, and they depended upon the county offices in Rawlins for legal advice and counsel.

Financial matters were apparently serious concerns in the early days of school district operation, particularly following the depressed decade of the 1890s. In a note extracted from the board minutes of Bennett School District No. 22 (south of Saratoga), the following item appears: "In 1901 M... moved that the board delay in getting the lease of the school yard till July 1...to avoid paying the $1.00 revenue stamp" (Conner, 1964).

Attracting qualified teachers to the rough and tumble environment of Carbon County was sometimes difficult. Salaries were low, and sometimes the best teachers that could be had came with only an eighth grade education. In 1885, it was reported that the average teacher salary in the area was about $60.00 (Barnhart, 1969, p. 188). Often the teacher had to pay room and board to her ranch or town hosts, sometimes amounting to as much as a third of her salary. Willing Richardson, a pioneer rancher's son, recalls a slightly different sort of teacher arrangement (Burns, Gillespie, & Richardson, 1955, p. 615):

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[37] Beer Mug was the name and shape of a cattle brand on a ranch at Difficulty Creek (northwest of Medicine Bow). The Beer Mug school was still operating in 1972 as the most remote and smallest in the district.

[38] The Dunkards were a religious sect which settled near the Encampment River, at the south of the county, some time before the turn of the century.

> The winter of 1895-96, the Richardsons decided that their children should have more schooling, so they hired their own school teacher, a red-headed girl named Florence Edith Pane. They paid her $10 a month and board. Things began to pick up about this time at the Richardson ranch and Richardson did not have much trouble getting his winter feeding done, for there was always some young, hopeful "moon-eyed" young man coming around hoping to spend a little time in the teacher's company. That winter was a lively, pleasant one, with parties nearly every weekend at some neighbor's house.

In the early 1900s, teacher salaries were higher, and in Medicine Bow, for example, a teacher in 1905 was receiving $80 per month, paid for in $20 gold pieces. By the decade of 1925 to 1935, rural school teacher salaries had raised very little, while town teacher salaries were disparately higher. The average rural teacher's salary in the county during that period was $818 per year, ranging from $966 in 1925-26, to a high of $1,013 in 1929-30, to an extreme low of $409 in 1934-35. Town teacher salaries during the same period ranged from a high of $1,463 in 1925-26, to a low of $1,070 in 1934-35 (Knudson, 1937, pp. 68-70). Knudson (ibid.) thinks these wide fluctuations indicate an oversupply of teachers and adverse economic conditions, as well as attempts to care for isolated school children with low-paid instructors operating short school terms. Even as late as the early 1950s, teacher salaries were as low as $200 per month (Conner, 1964).

Most teachers in the early days were young women, some from the local area but most from out of state, from the East. Reflecting on their low level of education, one rancher has commented that "some of them just practiced on us." Steps were soon taken to contact candidates with at least high school diplomas, and county teacher institutes were held under the auspices of the county superintendent to help upgrade the level of instruction.

Throughout the written record and from reminiscences gathered, a trend emerges--many of the young teachers married local ranchers and townsmen. Owen Wister's account of the Yankee "schoolmarm" marrying the Virginian is a fictionalized and romanticized reflection of this basic fact. Larson (1965, p. 202) reports that the ratio of eligible men to young women in the territory in 1870 was six to one. By 1890, it had improved somewhat, to 2.59 men for every woman (ages 21 or over). By the 1960s it had become virtually even.

The town schools, like their ranch counterparts, also served as focal points for many social and other public functions. The school at Rawlins, for example, for a while shared the courthouse building which also served as an opera house, dancehall, and jail, and reportedly as a safe refuge against the attack of "savage Indians."

In time, high schools in the towns attracted the ranch youth, who often boarded away from home with town relatives or family friends. The first high school in the county, and one of the first in the state, was at Rawlins. Its first commencement, for two students, was held in July, 1887. By 1895, Rawlins high school was one of five in the entire state. At the time, barely 2% of all pupils in the state were enrolled in high school (Larson, 1965, p. 227, based on Fromong, 1962). Many new high schools opened during the first third of the twentieth century. By 1935, in Carbon County, there were seven accredited four-year high schools, and one three-year accredited high school, as well as six permit high schools which offered some high school courses. These high schools attracted 20% of the potential students in the county (which, together with 61.4% of the enumerated children enrolled in grades 1-8, accounts for 81.4% of all county children in school). Two of the high schools, at Baggs and at Saratoga, were in special high school districts which attracted students as well as school support from neighboring elementary school districts. Five of the four-year high schools were in the eastern portion of the county, at Saratoga (High School District No. 9), Medicine Bow, Hanna, Encampment, and McFadden. Permit high schools existed at Elk Mountain, Shirley, Battle Mountain, and Beaver Creek (Knudson, 1937, pp. 32-56, 80 [Table XLII]). By 1950, there were six four-year high schools at Encampment, Saratoga, Hanna, Elk Mountain, Medicine Bow, and McFadden.

The elementary school at Medicine Bow was started in 1876, as a part of School District No. 6. It started in a one room schoolhouse which was moved several times. In 1914, a brick schoolhouse was constructed with four rooms; it had two teachers and eight grades. The first high school in Medicine Bow was opened in 1923. Outlying rural schools were maintained in the remote ranching and homesteading areas north of the town, at Shirley Basin, on Muddy Creek, at Little Medicine Bow Crossing, on the Sullivan ranch, and in similarly isolated locations.

School in Hanna started in 1889, with the initial opening of the Hanna coal field and the founding of the town. Many of the early miners lived in tents (or commuted to and from Carbon), and one of the first permanent buildings was a schoolhouse. By 1918, the Union Pacific Coal Company (which owned the town) constructed a new building to house the elementary grades and the first high school. The high school held its first commencement in 1920. Hanna schools served both Hanna and the adjacent, and predominantly Finnish, hamlet of Elmo, and after consolidation of the Elk Mountain school district with Hanna in 1961, they served that community (14 miles distant) as well.

Saratoga's first elementary school was opened shortly after the first settlement around the hot springs in the 1870s. A high school was opened in the early 1900s, and was soon organized as Platte Valley High School District No. II (incorporating support from District 9--Saratoga, 17--Pass Creek, 22--Ryan Park, Bennett, and Cedar Creek, 26--Spring Creek, and 35--Ellwood).

Elk Mountain's first elementary school, known as the school at The Crossing (of the Medicine Bow River), was opened in 1910. Its first four-year high school graduates finished in 1941. The Elk Mountain high school was closed in 1961, with consolidation into the Hanna school district.

Schools at Encampment and Riverside were opened in 1900 and 1901, respectively. The Encampment school served the copper mine workers' and townspeople's children, while that at Riverside served the nearby rural ranch children. The first high school at Encampment held commencement in 1932, although for several years courses through grade 10 had been offered.

The McFadden elementary school was opened in 1918, simultaneously with the development of the McFadden oil field and the founding of the

Marathon Oil Company town of the same name, in the valley of Rock Creek. McFadden supported a small high school from 1924 through 1958.

A rural ranch school in the vicinity of Shirley Basin had existed since the 1800s, but the first elementary school in the new town of Shirley Basin, grades 1-6, was opened only in 1958, concomitant with the development of the Shirley Basin uranium field. Today Shirley Basin school is the youngest and probably the most temporary in the county. High school students are bussed into the Bow-Basin high school at Medicine Bow, 37 miles south. The Shirley Basin school plant is one of the few permanent buildings in the predominantly mobile trailer town. The school plant, however, is modular, so it can be moved. In 1971 the town was moved to a new site, several miles from its original location, and the school building came with it.

While the schools were largely responsible for the creation of neighborhoods in Carbon County, these feelings were augmented and reinforced by local post offices. Between 1886 and the present, 91 post offices are recorded to have existed in the county, 14 of which are still operating (Meschter and Dolezal, 1974). Many of the original post offices were opened along the railroad, at ferry crossings, in mining towns, and on ranches (sometimes in conjunction with a mercantile outlet). As roads improved and automobile travel came into vogue, and as the towns grew to be important commercial and social centers, a majority of the rural post offices were closed.

The first post office in the county was at Elk Grove. By 1869, the year of territoriality, the following post offices had been established, indicating the pattern of settlement: Benton, Carbon, Fort Fred Steele, Fort Halleck, Medicine Bow, Percy, and Rawlings Springs (Rawlins). All but Fort Halleck were on the railroad. At the turn of the century, the majority of post offices were in remote rural areas, with the exception of at least eight which existed in the boom towns of the Encampment Copper Mining District. Major post offices which operated in the area comprised by the present School District No. 2 are (in order by date of opening): Medicine Bow (1869), Elk Mountain (1877), Saratoga (as Warm Springs, 1878), Hanna (1890), Riverside (1901, closed in 1910), Walcott (1902), McFadden (1921), Ryan Park (southeast of Saratoga, 1937), and Shirley Basin (1961).

For several towns, the railroad was the economic impetus and continuing lifeblood in those early days. Ranchers depended upon the railroad to transport their livestock to market. Loggers, whose industry began to flourish in the 1920s and 1930s, shipped lumber and supplied the ties for railroad tracks. The coal mines, which drew the railroad to this part of Wyoming in the first place, shipped ore to eastern points and supplied the trains' fuel needs. Railheads such as Medicine Bow, Carbon (since abandoned), Hanna, and later Saratoga on the Saratoga-Encampment Railroad (a spur of the main line Union Pacific) naturally became mercantile and banking centers. In a short time, they became the centers of regional commerce, dependent in the long run, however, on larger cities such as Laramie, Cheyenne, Denver, and Kansas City. They boasted telegraph offices, stock yards, post offices, saloons, houses of ill repute, schools, and churches. The towns were the first to experience the luxuries of electricity. The first power plant at Saratoga, for example, was started in 1902, but it was the 1940s before the whole of the Platte Valley was electrified by the Rural Electric Association cooperative. Townspeople were also the first to have telephones and to see silent movies, and some took advantage of other entertainment centers like the once famous pavillion at Elk Mountain, which periodically booked famous dance bands.

Medicine Bow, which is particularly well documented (see Ellis, n.d./a; 1932-38; and Wister, The Virginian, 1902), presents a picture of development and life style typical of a number of western railroad towns. It was built originally as a railroad pumping station, for watering trains, on a bend of the Medicine Bow River. Shortly, a depot was built and a telegraph office established. With the growth of the range industry, Medicine Bow became a shipping center for cattle and sheep, and, incidently, for epsom salts from a nearby lake.

> Step by step the country became sparsely settled, and the pumping station grew from just that, into a thriving little village. As was the case with all other frontier towns, there were for Medicine Bow, more exciting days than uneventful ones. Murders and robberies occurred, and twice the village was attacked by Indians....
>
> Two saloons were opened in the Bow and it was there that the thirsty cowpunchers went to break the drouth brought on by miles of sun-dried prairies and a hankering to be wild.... Many characters whose reputation bore of the unsavory, visited

> the Bow often, and remained there for weeks at a time.... Needless to say they were the inspiration for many a brawl....
>
> Owen Wister, famous novelist, spent several weeks in and around Medicine Bow, collecting data for his story entitled "The Virginian." In his book he brought a great deal of notoriety to the little town (Ellis, 1932-38).

Today, there is a monument to Wister's memory and a "Virginian" hotel, motel, and bar in the town. Wister's description of Medicine Bow at the turn of the century is something less than flattering:

> Town, as they called it, pleased me the less, the longer I saw it. But until our language stretches itself and takes in a new word of closer fit, town will have to do for the name of such a place as was Medicine Bow....
>
> ...twenty-nine buildings in all--one coal shute, one water tank, the station, one store, two eating-houses, one billiard hall, two tool-houses, one feed stable, and twelve others that for one reason and another I shall not name. Yet this wretched husk of squalor spent thought upon appearances; many houses in it wore a false front to seem as if they were two stories high. There they stood, rearing their pitiful masquerade amid a fringe of old tin cans, while at their very doors began a world of crystal light, a land without end, a space across which Noah and Adam might come straight from Genesis. Into that space went wandering a road, over a hill and down out of sight, and up again smaller in the distance, and down once more, and up once more, straining the eyes, and so away (Wister, 1902).

But, according to Wister, "time flowed faster than ink," and the Medicine Bow he described was gone even before his book was published. In its place was a "thriving village" with a school, a bank, a newspaper, a couple of hotels and saloons, and a stable population which glorified its past as the "wildest town" on the railroad.

Medicine Bow incorporated in 1909. It soon got electricity and telephone service, and a Cosgriff brothers' bank (one of several in the county, and many in the state and the larger Rocky Mountain region). The streets were graded, some sidewalks concreted, and water and sewer systems were installed.

In 1913, the famous "Virginian" Hotel was opened for business, celebrated by a banquet served in many courses, and by an all-night ball. The hotel was reputedly one of the finest in the state, decorated

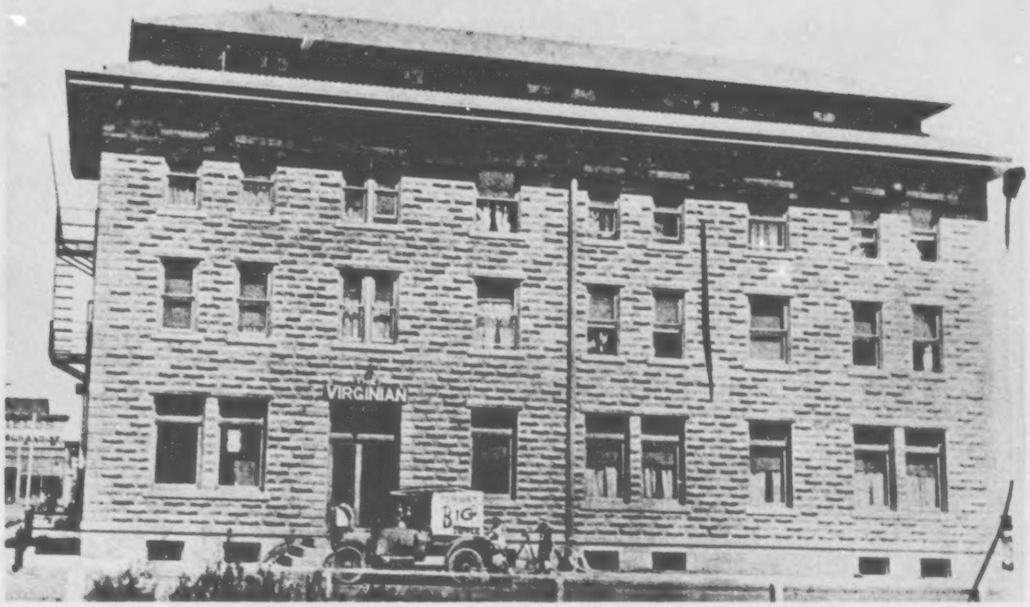
VIRGINIAN
BIG

Fig.17. The Virginian Hotel, Medicine Bow, Wyoming, 1920s.

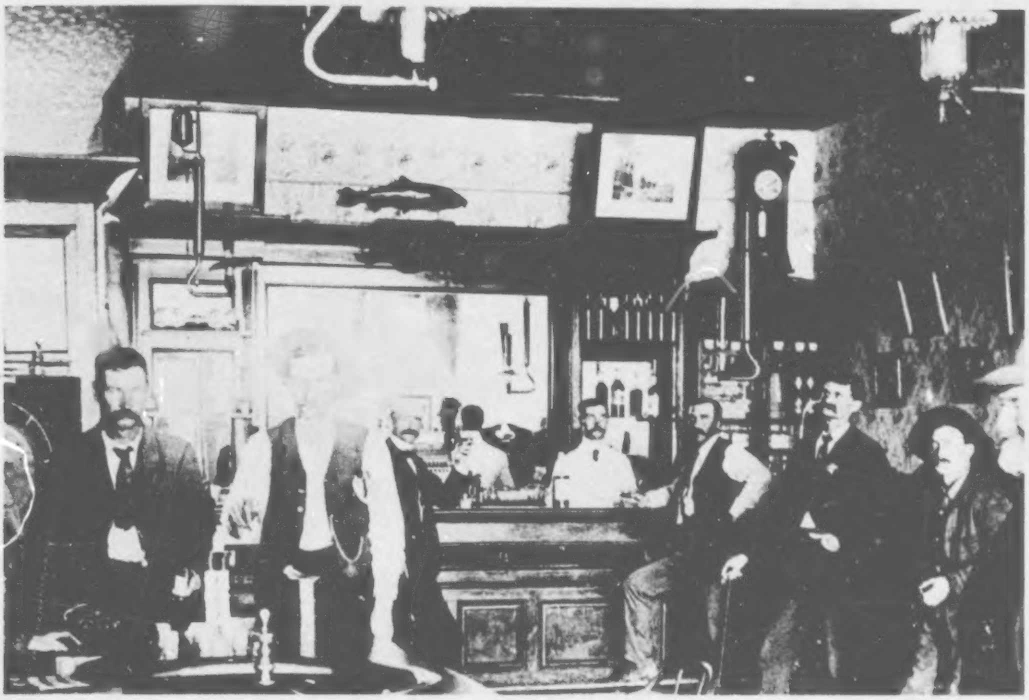

Fig.18. Saratoga bar scene, 1900.

in a Western fashion complete with drawings of Western scenes by Charles Russell (Ellis, 1932-38).

By the early 1930s, there were three modern hotels, the bank, three mercantile stores (one of which featured a meat market), a lumber yard, two "first class garages," and four filling stations. Medicine Bow was then an important stop on the east-west Lincoln Highway (U.S. Highway 30). There was also a landing field nearby. An Australian shearing plant handled thousands of sheep annually.

> Many thousands of pounds of wool are shipped annually from the Bow, for the surrounding country is adapted to stock raising, sheep far surpassing any other industry. Wool buyers flock to the Bow each season to purchase the gigantic clips which are first class wool.
>
> Medicine Bow is trading center for the northeastern part of Carbon County as well as the northwestern part of Albany County and in this section are many well-to-do ranchmen and stockmen (*ibid*.).

The ranchers and their families depended on the towns as educational, social, economic, and in some instances political centers. Ranch youth went to school there, and some of them went on to the University at Laramie (established in 1887). School social and athletic activities became dominant attractions over the years, vying only with the churches and the entertainment houses (of both ill and good repute). Economic ties to the towns were perhaps strongest, particularly as livestock were prepared for shipment to market by railroad each fall. Political affairs, other than those related to the school districts and the towns, were usually centered in the county seat at Rawlins.

As the towns served the unmarried ranch hands with various forms of entertainment and good times, they also served the ranch families with occasional breaks in the long sieges of isolation and hard work that ranch life entailed. Despite the isolation of the rancher, however, rural dwellers depended greatly upon their neighbors, however far distant. The ideal of the rugged western individual who could and had to "go it alone" is more fancy than fact, for in truth, the rancher needed his neighbors and depended on outsiders and townspeople more than he might wish to admit for periodic help, advice, and for just plain good times.

Among the primary values held by early residents was a commitment to hard work and a sense of civic or community responsibility, be that in a rural neighborhood or school district, or the towns, or in county-wide affairs of government and business. Intermarriage among the local families was commonplace and led to the development of notable and strong inter-family networks. Examples can be found among the families descended from the early sheepmen of Rawlins, and from among the early ranchers and miners in the North Platte Valley, and in fact throughout the county and the state. The influence of family and kinship networks was reflected in incipient forms of economic and political activity, some of which have a continuing effect on county life and politics today.

Wyoming's historian, T. A. Larson (1965) has commented at length on the social and civic life which existed during territorial days and in the early decades of Wyoming statehood (after 1890). He discusses the development of towns, food and health standards, holidays and festivities, predominance of males and their vices (encouraging prostitution, drinking, and gambling), the development of fairs, rodeos, and traveling shows, dancing as a prominent form of local entertainment, picnicking, camping, hunting, and fishing as recreational pursuits, and the large number of clubs which existed, particularly fraternal organizations such as the Odd Fellows and Rebekiahs, the Knights of Pythias, the Masons and Eastern Star, Job's Daughters, and others. The refinements of women's clubs, libraries, and churches were also developing in those early years. Violence, and the quest for law and order, take up a significant portion of Larson's writing, as does the significance of the early newspapers as major communications links between ranch and town, and between various levels of government and the people at large.[39] Much of what he depicts is relevant primarily to the cities of Laramie and Cheyenne, as the social, cultural, and intellectual centers of early Wyoming. But many of the activities and entertainments, on a smaller scale, were also present and available to one and all in the small towns of the hinterland, and are recalled by old-timers in Carbon County with a certain nostalgia.

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[39] Mrs. Charles Ellis reports that during the decade of the 1920s among the several newspapers published in Carbon County were the Rawlins Republican (dating from 1889) and the Saratoga Sun (1891). Others published then were the Wyoming Reporter (succeeding the Carbon County Journal), the Encampment Echo, and the Snake River Sentinel (Ellis, n.d.).

It should be noted that much of the aura and romance, as well as the violence, depicted in Western novels, movies, and television, find roots in the early life on the range in Carbon County. Owen Wister's The Virginian is a classic example of a romantic Western tale which has inspired countless variations to TV audiences numbering in the millions. But, as Larson has pointed out, in all of Wister's travels in Wyoming, he never once saw a man shot or shot at. This is not to say that violence did not exist, for it did in sometimes bloody and brutal force, and today towns like Medicine Bow stake a claim to the violent past in order to attract the tourists. Many are the tales and re-enactments of vigilante activities and sheriff's posses tracking down the ghosts of old Dutch Charlie and the likes of Big Nose George and other members of daring gangs who held up railroads, stages, and banks alike. In 1898, the state penitentiary was opened at Rawlins, but it did not always have the honor of housing the most notorious, who were simply shot or hung on their way to justice. As the historians point out, however, and the old-timers verify, if a person stayed out of the saloons and the houses of ill repute, he generally avoided the violence.

The other side of life featured a strong concern for religious precepts and a tendency toward upright and moral living. Over the years, following the era of the lone and lonely cowpuncher, the family took over as a primary unit of social and economic attention. The ranch wife and mother, in particular, came to be revered and highly respected for her role in society. Organized religion, often promoted by the women of the family, took on a certain prominence among townspeople and ranchers alike (a situation interestingly contrasted with other places on the western range; compare Bennett, 1969). In Carbon County, Catholics and Protestants alike have been very strong. Among the Protestants, the Presbyterian Church is historically prominent, especially in the areas surrounding Rawlins, Saratoga, and Encampment. In Medicine Bow and Hanna, the Episcopalians and Lutherans were important sects. To a large extent the churches at first reflected certain ethnic groupings, such as Irish Catholic, Scotch Presbyterian, English Episcopalian, and Finnish Lutheran. Fundamentalism developed, and Mormonism also became a significant movement.

Religiosity among many of the ranchers is very pronounced. A very popular camp meeting, held annually in July (followed by the harvesting of hay) was begun in the late 1940s, fashioned after a much older tradition found in the American Southwest. Called the "Ranchers Camp Meeting," the local version bears strongly the mark of the ranchers of the Platte Valley (around Encampment, in particular), and is part of a much larger circuit of camp meetings managed since their inception by Presbyterian church leaders. Interdenominationalism is stressed, in fact, and participation by townspeople and by youth is especially encouraged.

Since the 1930s, another family oriented activity, allied strongly with the schools and with local and county fairs, has developed: the 4-H clubs for boys and girls. Along with 4-H, there are school-centered Future Farmers of America (FFA) and Future Homemakers of America (FHA) organizations, stressing vocational agriculture and homemaking, respectively. Both town and ranch youth are eligible to join these organizations, but the ranch youth predominate.

# RECENT HISTORY: TRADITION AND CHANGE

## The Impact of Change on Town and Country

The 1950s and 1960s were decades of change and instability in Carbon County. The changes were not uniform over the school district, but are best discussed in terms of their differential impacts. They must not be viewed as local phenomena only, but as part of a larger atmosphere of change throughout the nation. Hanna, for example, suffered economic and demographic decline concomitant with changes in the coal and railroad industries nationwide, while Shirley Basin boomed in the flush of uranium field development. Saratoga experienced both blessings and bad times, as the local timber and recreation-tourist industries suffered financial declines, followed by reactivation with the influx of new money and new managerial skills. Medicine Bow felt the decline associated with the coal mines and the railroad as well as the growth associated with uranium and increasing highway traffic. After 1970, however, it suffered a severe setback with the opening of the interstate highway which bypassed the town completely. Elk Mountain and Encampment are best characterized as being only slightly affected by the changing economies around them, at least through the late 1960s, as they were basically stable towns dependent on a relatively stable range industry. McFadden, meanwhile, remained virtually unchanged since its inception as an oil company town. Except for a slight decline in oil company population, it continued to exist comfortably in the midst of a prosperous ranching area.

In the 1960s, state historian T. A. Larson characterized Wyoming in terms of two facts, connected as cause and effect: (1) the state continued to be primarily a producer of raw materials, exported for processing elsewhere, and (2) its population increase was not in keeping with the rest of the nation (1965, p. 545). In those same terms, Carbon County was a sort of encapsulation of the state trend. The county's eastern portion, soon to become unified School District No. 2, was dominated by four economic themes: the range industry (cattle and sheep), the mineral industry (coal, oil, gas, and uranium), logging and sawmilling, and tourism (including hunting, fishing, and other forms of outdoor recreation). The transportation industry was integral to each of these four major economies and will be discussed separately. Of the four economies, only tourism and recreation can be classified as nonexportable commodities which require outsiders to come into the county.

Before launching into a full description of economic changes per se, it will be helpful to examine briefly the demographic trends of recent decades which reflect the changes in the school district's economic base. The regular decennial U.S. census enumerations for Carbon County are particularly revealing for the decade of 1960 to 1970. They do not, however, reveal the dynamic aspects of changes that occurred. Following the demographic discussion and an overview of the transportation and communications industries, the components of the economy of the school district and towns will be examined in detail.

In the state, until the early 1950s, the vast majority of the population was rural. After 1950, the percentage of urban residents (in towns and cities over 2,500 population) increased and became the majority. In 1950, 49.8% of the population was urban; in 1960, 56.8%; and in 1970, 60.5%. When all incorporated towns and cities and all unincorporated places of 1,000 or more population are considered, the small town and urban population was much higher than the rural farm and ranch population for several decades prior to 1950. In 1950, residents of small towns and urban cities represented 63.7% of the total state population; in 1960, 70.6%; and in 1970, 74.2%.

Carbon County, with the exception of the only city, Rawlins (7,855 population in 1970), was composed of small towns and rural residents. The number of incorporated places was 11 in 1970, fully 12% of all the small towns and cities of the state. Seven towns (nearly 8% of the state total) were in the eastern portion of the county or within the confines of unified School District No. 2. In overall population, however, Carbon County represented only slightly over 4% of the state total (13,354 of 332,416 people), and the eastern portion of the county had only 1.25% (4,138 persons) of the state total.

Carbon County's population declined significantly between 1960 and 1970, from an overall total of 14,937 to 13,534, a change of -10.6%. In the accompanying table (Table 1), adapted from U.S. census figures, Carbon County is broken down into three census areas or subdivisions:

Rawlins, in the west, and Hanna and Saratoga, in the eastern portion of the county. Of primary concern is the eastern county, which in 1972 became unified School District No. 2.[40]

The two census divisions of the eastern county, considered together, suffered a 4.7% population decline, from 4,343 to 4,138 persons. Hanna subdivision alone declined by 6.4%, while Saratoga subdivision declined by 3.2%. Rawlins subdivision, on the other hand, suffered a much greater decline of 13%. The nature of these declines cannot be determined by the statistics, but needs amplification. The population loss is much better understood by examining the differential population figures for individual towns and the countryside.

The Hanna and Saratoga subdivisions consist of seven incorporated towns (in 1970), two unincorporated towns, and the rural hinterlands. The incorporated towns are Encampment, Riverside, Saratoga, Hanna, Elmo, Elk Mountain, and Medicine Bow. McFadden and Shirley Basin are unincorporated company towns; they were not enumerated in the census as "towns," but were lumped with the rural populations. In the accompanying table, the census figures designated as "other" included the populations of these two company towns.[41]

Of the seven incorporated towns, only two had population gains during the decade of the 1960s: Saratoga, with a 4.2% growth from 1,133 to 1,181 persons,[42] and Medicine Bow, with a growth of 16.1% from 392 to 455 persons. Of the remaining five towns, several suffered considerable population loss, e.g. Elmo with -41.8% and Riverside with -47.1%.[43]

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[40] Although the Hanna and Saratoga subdivisions' western boundaries do not correspond exactly with the western boundary of unified School District No. 2, they are considered to be the same in this study. The percentage of population enumerated in those two census subdivisions whc actually live within the confines of unified School District No. 1 is miniscule.

[41] Shirley Basin is a uranium company town, owned by Utah International Co. McFadden is owned by Marathon Oil Co. Neither of these company towns was enumerated with the incorporated towns of the county. Conservative estimates, by town officials place the 1970 population of Shirley Basin at approximately 310 persons, and that of McFadden at 59. The 9.6% population increase shown on the table for the rural hinterland (i.e. "other") of the Hanna census division is accounted for almost solely by the growth of Shirley Basin, which was founded and first settled in 1959 and 1960.

[42] There is some local concern that the census figures for the town of Saratoga in 1970 are unrealistically low. Pupil population figures from the Saratoga schools, and new residential utility hookup figures for the town (electricity, water, and sewer, taking disconnects for the same period into account) reveal percentages of population increase between 1960 and 1970 larger than 4.2%. A reasonable estimate would place Saratoga town's population increase for the decade at closer to 8 or 10%, noting that much of the increase occurred in the year just prior to the 1970 census enumeration.

Table 1

POPULATION OF CARBON COUNTY, 1960 and 1970

| County Subdivisions | 1960 | 1970 | Percent Change |
|---|---|---|---|
| Hanna division | | | |
| Elk Mountain town | 190 | 127 | -33.2 |
| Elmo town | 91 | 53 | -41.8 |
| Hanna town | 625 | 460 | -26.4 |
| Medicine Bow town | 392 | 455 | +16.1 |
| Other | 748 | 820 | + 9.6 |
| Total | 2,046 | 1,915 | - 6.4 |
| Saratoga division | | | |
| Encampment town | 333 | 321 | - 3.6 |
| Riverside town | 87 | 46 | -47.1 |
| Saratoga town | 1,133 | 1,181 | + 4.2 |
| Other | 744 | 675 | - 9.2 |
| Total | 2,297 | 2,223 | - 3.2 |
| Rawlins division | | | |
| Baggs town | 199 | 146 | -26.6 |
| Dixon town | 108 | 72 | -33.3 |
| Rawlins city | 8,968 | 7,855 | -12.4 |
| Sinclair town | 621 | 445 | -28.3 |
| Other | 698 | 698 | 0.0 |
| Total | 10,594 | 9,216 | -13.0 |
| Carbon County Total | 14,937 | 13,354 | -10.6 |

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[43] Both Elmo and Riverside were small towns to begin with, and the loss of only a few families can cause a great percentage of popualtion decline.

## Transportation and Communications

Several aspects of the transportation industry, as it affected Carbon County, underwent gradual but considerable change in the few decades prior to the 1970s. These changes are reflected in the discussion of overall economic changes, which follows later.

The railroads, nationwide, changed both in kind of operation and in their importance as a major employer. Short-run traffic became uneconomical, from the railroad's point of view, and long-run, transcontinental business was sought instead. This had serious effects on local use of the railroads and on the viability of the economies of small railroad towns like Hanna and Medicine Bow. The Union Pacific attempted to close a number of local depots, including Medicine Bow in 1971, but the town protested. The Wyoming Public Service Commission, at a public hearing in 1972, ruled that public convenience and community necessity required the Medicine Bow agency to remain. (The Union Pacific subsequently appealed, but the decision was upheld by the Wyoming Supreme Court.)

Local ranchers, once dependent on the railroads to move their stock to feedlots and markets in neighboring states, were forced to turn to other systems of transport. In the place of local railroad business, commercial trucking service developed, and Medicine Bow, once almost fully dependent on the railroad as it applied to the livestock industry, turned to the Lincoln Highway for economic stability of a sort.

Larson has summed up the state's transportation changes in terms of railroad, trucking, and pipeline employment. Carbon County's part in these changes can be read between the lines, and the trends outlined for the decade of the 1950s, below, continued on through the 1960s. Only in the early 1970s did the importance of the railroad again become felt in the reopening coal fields of Hanna and Elmo.

> Except possibly for Green River [in Sweetwater County], there were no railroad towns in the 1960s--certainly not in the sense that Cheyenne, Laramie, Rawlins, Green River, and Evanston had been railroad towns until after World War II. During most of Wyoming history, railroad employment had been of major importance. This ceased to be the case in postwar years, when modern trains required fewer trainmen and shopmen. Where there had been 8,272 railroad and railway-express workers in 1950, there were only 4,981 in 1960.

> Trucking-service employment rose from 1,194 in 1950 to 1,982 in 1960, and pipeline employment from 385 to 538, but total transportation employment in the decade declined from 11,023 to 8,553 (Larson, 1965, p. 563).

With the growth of the trucking industry, the highways through the county were improved, notably U.S. Highway 30, the "Lincoln Highway," which ran east-west through Medicine Bow, past Hanna, through Walcott Junction, Sinclair, and Rawlins. Highway 30 became a major transcontinental highway, eclipsed only by Interstate 80, which was completed through the county in 1970. The route through Medicine Bow was highly advertised as a touring route as well as a trucking route. South of Walcott Junction, Highways 130 and 230 were improved to Saratoga, Encampment, and over the Snowy Range to Laramie. The latter gave tourists incentive to visit the Medicine Bow Mountains and assisted in giving local tourism a boost generally. North of Medicine Bow, Highway 487 linked the fast growing commercial and industrial city of Casper to the northern sector of the county, and a short loop, Highway 75, was built to accommodate the new boom town of Shirley Basin.

One effect of highway improvement within the county, and across the state and region, was to lure local residents to shop in larger cities such as Casper, Laramie, Cheyenne, Fort Collins and Denver. Local business and banking informants estimate that in 1970 as much as 80 to 90%, and in some categories 100%, of all retail trade was carried on outside the school district, much of it completely outside the county and the state.

The Saratoga & Encampment Railroad has had a unique history of its own. It was constructed in 1907-08 by the Saratoga & Encampment Railroad Company, a subsidiary of the Penn-Wyoming Copper Company. Over the years, it has changed ownership several times, but has never been especially profitable. Shortly after the copper mine collapse at Encampment in 1910, the railroad was placed in receivership and was operated by a representative of a bondholders' committee until 1919. In that year, it passed into the control of the Morse Brothers Machinery and Supply Company, which also took title to the abandoned mine buildings and equipment at Encampment for purposes of salvage. In 1921, application to abandon the railroad was filed with the Interstate Commerce Commission, but significant opposition was voiced by local residents, and by Wyoming's governor and U.S. senators. Instead, the Union Pacific was persuaded to undertake an experimental operation of the line for several years under an agreement with Morse Brothers. In 1928, Morse Brothers again contemplated abandonment, at which time a citizens' committee comprised mostly of ranchers from Encampment, Saratoga, and vicinities, bought the line for $100,000 to ensure its continued operation. They used it primarily to haul cattle from the North Platte River Valley to eastern markets. That year, the Saratoga & Encampment Valley Railroad Company was incorporated, and the line was operated under that name until the Union Pacific Railroad Company acquired ownership in 1951, whereupon it was redesignated the "Encampment Branch" of the Union Pacific.[44]

In recent years, the line has been used primarily by a few ranchers in the Platte Valley and by the Edward Hines Lumber Company mill at Saratoga. In 1972, only two loads of freight (cattle for market) originated at Encampment, and the Union Pacific was seriously considering total abandonment of the Cow Creek (south of Saratoga) to Encampment section.

As the interstate highway system developed in the 1950s and 1960s, a new picture of highway transportation across Carbon County began to emerge. Interstate 80, a major four-lane transcontinental freeway, was planned across the state. Portions of it were completed by the mid-1960s in Sweetwater County and as far east as Rawlins in Carbon County. The link between Rawlins and Laramie was opened in October, 1970.

Studies of Interstate 80 traffic in the 1960s indicate that there was a significant increase in traveler volume across southern Wyoming, necessarily including the U.S. 30 route through Medicine Bow. Unfortunately for Medicine Bow, however, the new interstate highway was routed several miles south, east from Walcott Junction, past Elk Mountain and Arlington, to Laramie. Medicine Bow residents lobbied in vain for the route to parallel U.S. 30 and the Union Pacific Railroad line through their town. When the Rawlins-Laramie portion of I-80 was completed in 1970, highway traffic through Medicine Bow declined sharply, forcing a number of local highway-oriented businesses to close.

Along the interstate highway itself there was no serious impact on local land values and few new highway-oriented businesses were opened, except for the usual small service enterprises at the interchanges (at Walcott, Elk Mountain, and Arlington). Of all the stops on I-80 within the county, only Rawlins has been greatly affected, with a growing dependence on highway travelers and truckers needing fuel, food, and lodging.

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[44] Union Pacific Railroad Company to Mrs. V. J. Allred, November 4, 1954, Allred Collection, Saratoga, Wyoming.

Interstate 80 across southern Wyoming has been called a "bridge highway" serving, mainly, to carry travelers to destinations out of state. In a study of traffic through Sweetwater County in 1970, only 18% of travelers interviewed had destinations within Wyoming; the remaining 82% were going elsewhere (Hooker and Potter, 1971). This history's earlier concern with "travelers across the land" is reiterated here, and it is not insignificant that Interstate 80 through Carbon County parallels the older overland route of the pioneers of the last century.

Small, rough landing fields were constructed in the 1920s, 1930s, and 1940s, at such places as Medicine Bow, Saratoga, and Rawlins. Eventually, commercial air passenger service was established to Rawlins, with occasional stops at Saratoga, but that enterprise was never very successful. The volume of traffic was simply too small. Private flying, however, became more prominent over the years and contributed significantly to the local tourist-recreation industry, particularly through Saratoga. By the mid-1960s, it was not uncommon to see a number of executive aircraft at Saratoga's Shively Field, for the convenience of clients of the local resort clubs and dude ranches in and out of town. In the early 1970s, small prop and jet aircraft traffic into Saratoga improved markedly, to the point where locals boasted that they had one of the busiest airfields in the entire state.

The impact of the mass media and communications upon life in Carbon County is probably little different from elsewhere in rural America. Television is the most intrusive, disrupting traditional patterns of intra-family and neighborhood social interaction and spreading the gospel of urban America throughout the hinterland. One impact of TV in the developing world has been to raise aspirations, often beyond realizable limits. To a certain extent, the same may be said of the impact of TV on Carbon Countyites. The lure of the city and the bright lights, however, has been tempered by the still very strongly held values of rural and small town Western life.

By 1970, in Carbon County, only three TV stations could be received, none of which originated within the county. One station each was available from Casper, Laramie, and Cheyenne. In most instances, these stations were received with the help of booster stations built and supported by local donations. The only cable TV available to county residents was at Rawlins.

Radio stations at Rawlins, Casper, Laramie, and from Denver and northwestern Colorado were easily received. The Rawlins station catered primarily to local interests in terms of local news and country-western music. Many of their advertisements were meant to attract travelers on the Interstate.

The number of newspapers in the county has declined in recent decades, as the importance of radio and TV, and of easier transportation, increased. In 1970, Carbon County had two major newspapers of its own, the Rawlins Daily Times and the Saratoga Sun. Many residents also subscribed to papers from Casper, Laramie, Cheyenne, and Denver to gain a broader perspective on the regional and national-international scenes.

## The Economic Base

### Ranching

Prior to mid-century, the socio-economic and cultural base of Carbon County life had become well established. The range and livestock industries had had the greatest effect. Cattle and sheep, and their attendant cowboys and shepherds, dotted the range for more than three-quarters of a century, and all indications were that they would continue to do so. Local styles in dress, song, and dialect reflected the cowboy culture of the Great American West.

The towns of Riverside, Encampment, Saratoga, Elk Mountain, and Medicine Bow depended to a great extent on the livestock industries, as did Rawlins. Most of these towns had developed to serve pioneer ranchers' needs, although most of them had other incentives for growth as well--e.g. the hotsprings at Saratoga, the railroad at Medicine Bow, and the copper boom near Encampment and Riverside.

For the bulk of this century, the cattle industry underwent little change. It developed out of the boom and bust era of the late 1800s. Following the demise of the large cattle baron, the small rancher became the mainstay of the industry. In the early 1900s, the sheep industry reached its peak, followed by decline and eventual stabilization in the hands of a few large outfits, mostly based at Rawlins or in the northern sector of the county. Fluctuations in tariffs on wool and the importation of large quantities of foreign mutton and wool had their adverse, but not totally debilitating, effects on the sheepherding economy.

By the late 1950s and early 1960s, however, significant changes were beginning to occur in the range industry. For one, more scientific, cost-effective ranching and sheepherding methods were being tried, often through the county extension service office in Rawlins.

Something else was happening in the cattle industry. In the Platte River Valley, at Saratoga and Encampment, and to a lesser degree near Medicine Bow, wealthy eastern and midwestern interests were beginning to buy ranches and consolidate them into larger units of production.

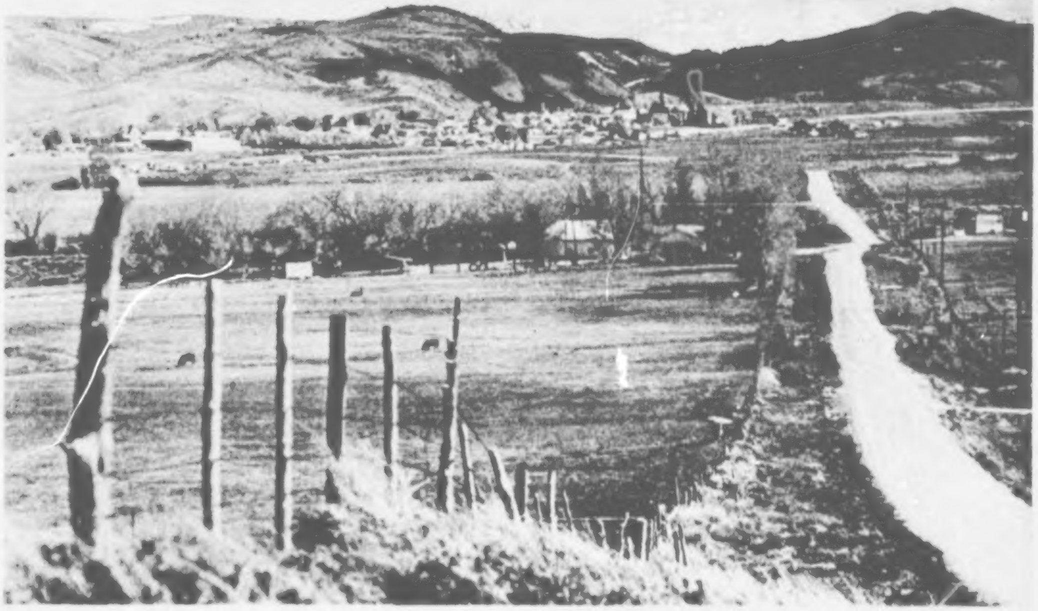

Fig.19. Encampment, Wyoming, 1970s.

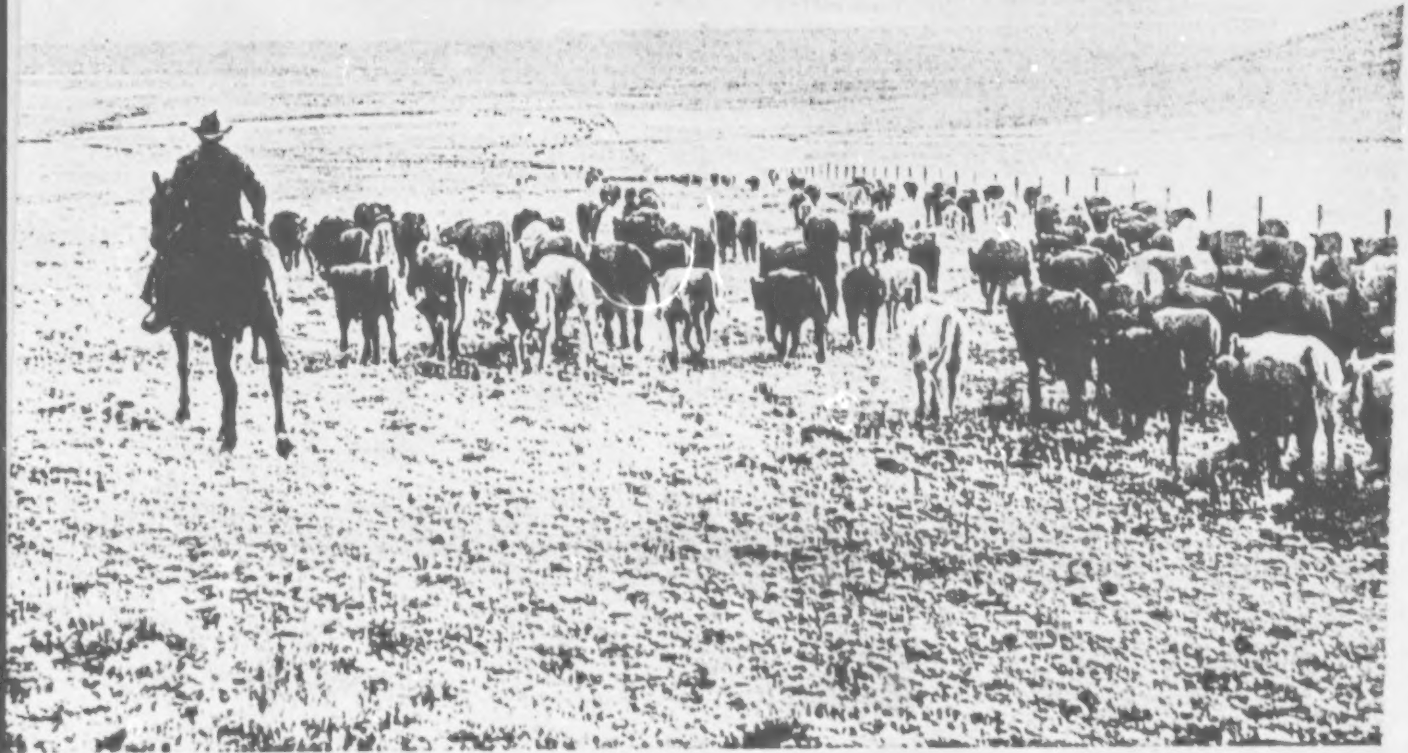

Fig.20. Herding cattle across the range, near Saratoga, Wyoming.

The small rancher was both attracted and threatened by the prices which were being paid for land, cattle, and ranch facilities. More than one old-timer sold his outfit and retired with a flush bank account.

The trend for outsiders to build large cattle ranch holdings in Wyoming is reminiscent of the early stages of the development of the industry, in the 1880s. Some of the new owners built and maintained year-round residences on their ranches, but most operated them in absentia through local managers. The incentives were several, but the financial aspects of the large ranching venture as a tax break were probably uppermost in the minds of the buyers. One cannot overestimate the importance of two other aspects of the trend: the desire to get away, for part of the year at least, from the rush and clamor of city social and business life, and the lure of the romantic West. As one rancher near Saratoga put it: "these wealthy people are attracted to the romance of the cowboy and the ranching; they like to feel cowboy boots on their feet and a stetson on their head." He further indicated that there was a concern among "real ranchers"; i.e., the small, local, long-time ranchers of the valley, that if the absentee-owned, managerial style ranching ever lost the profit incentive, the industry would be in trouble. It is the competitive, profit motivation which, from the point of view of most serious cattle ranchers, makes it a sound and dynamic industry. The list of consolidated absentee-owned ranches in the Platte Valley and around Medicine Bow is lengthy, with at least 16 "big ones" owned by wealthy executives or corporations from out-of-state.

## Mining and Energy Resource Development

The mining-energy development industry is, for several towns of Carbon County, the dominant single industry. This applies to Hanna, Elmo, Shirley Basin, and McFadden. To a lesser extent, the towns of Medicine Bow and Elk Mountain (and even farther removed, Saratoga and Rawlins) depend on a strong mining industry to continue to be residential towns for the miners.[45] Of all these towns, McFadden has been the least affected by change.

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[45] Commuting distances to the Hanna coal mines are, from Rawlins--40 miles, Saratoga--40 miles, Medicine Bow--19 miles, and Elk Mountain--14 miles.

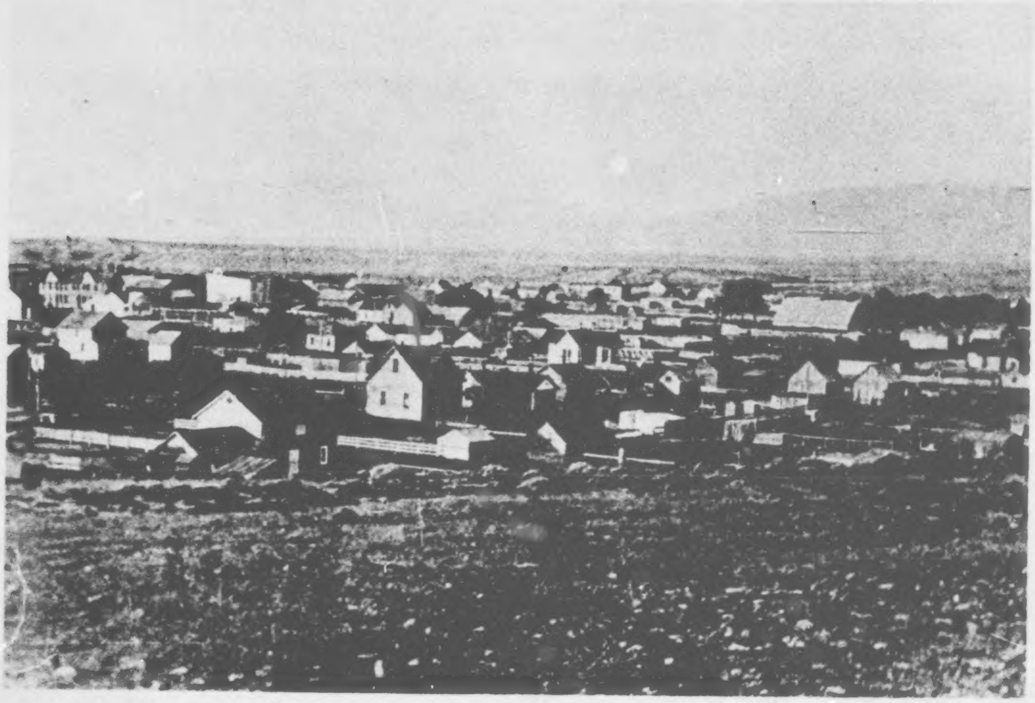

Fig.21. View of Saratoga, Wyoming, c. 1907.

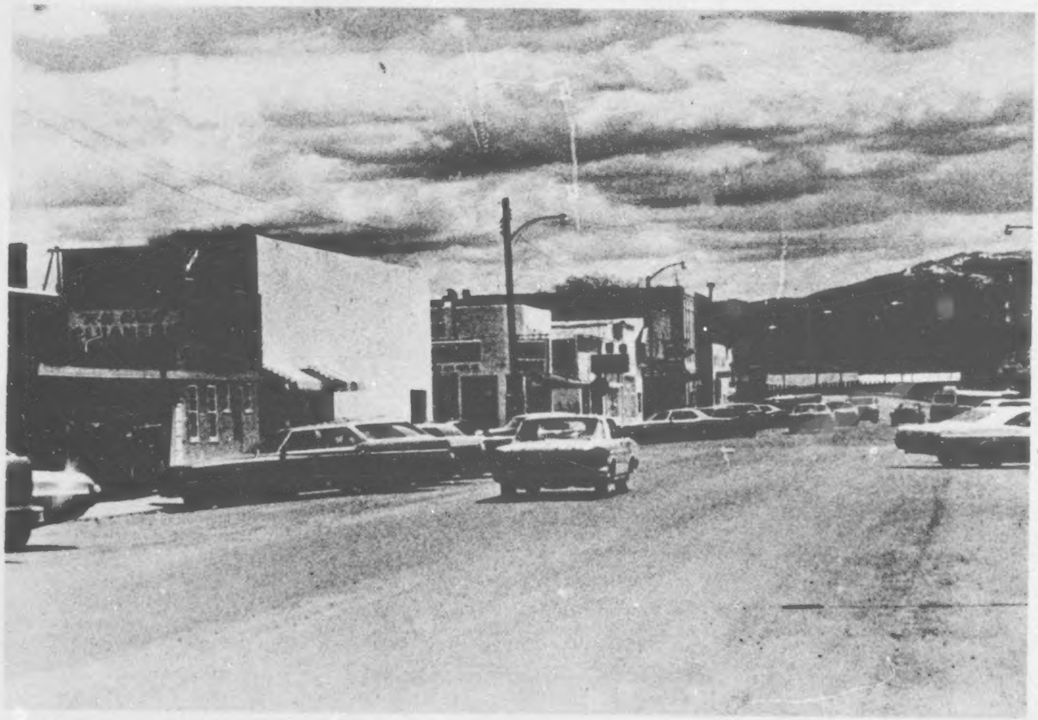

Fig.22. Downtown Saratoga, Wyoming, 1970s.

Towns of single industry are extremely vulnerable to shifts in supply and demand for their only product. This vulnerability is dramatically demonstrated in the recent history of Hanna.[46] Until the immediate post-World War II years, Hanna remained a reasonably prosperous Union Pacific coal company town. Then, in 1947 or 1948, the first diesel engine rolled past the Hanna depot, and it is said that the townspeople lined the railroad tracks and cheered. By 1954, the Union Pacific determined that oil was more economical than coal and switched entirely to diesel-burning locomotives.[47] With that action (and in the absence of other demands for Hanna's coal), the mines were shut down, miners were out of work, and the town went into a severe and extended depression.

Almost immediately the hospital closed, the doctor and dentist moved away, the hotel and company store shut down. The bank lasted until 1956, then moved away to Laramie. In the spring of 1954, the company essentially gave the town away to its remaining residents (i.e., to the town council), whereupon it was incorporated. The population declined rapidly. Between 1950 and 1960, Hanna's population dropped from 1,326 to 625, a loss of 53%. The decline continued between 1960 and 1970, at a lower 25.4% rate. The overall decline for the two decades was 871 persons, or 66% of the 1950 population. Nellis (1974, p. 231) reports that

> those who stayed earned their livings in a variety of ways--the railroad, the school, the planing mill which operated from 1955 to 1966, commuting to jobs in nearby communities, or working in the Rosebud mine when it opened in 1962.[48] The young people left and there were very few heads of households under 30 before the recent boom; in fact, the median age of heads of households who were in Hanna prior to this boom was 59...

Although there were attempts to exploit other resources, nothing took hold, and Hanna's future seemed uncertain through the 1960s. But gradually there was an increase in demand for Hanna's relatively clean bituminous coal (in part a response to the environmental movement and concerns about nuclear power plants), and technological breakthroughs permitted large-scale strip mining operations to commence (despite the objections by environmentalists). By 1971, there were three mining companies again working in the Hanna area: Rosebud Coal Sales Company, Energy Development Company, and Arch Minerals Corporation. Coal production for that year amounted to 1,497,567 tons (DeHaan, 1972). In 1970, there were 460 people in Hanna, and 53 in neighboring Elmo, two miles east. In 1972, there were 858 people in Hanna, double the figure of two years before, and a total of 227 in Elmo (Nellis, 1974, p. 232).

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[46] For the most recent and thorough discussion of Hanna's development problems through 1972, see Lee Nellis, 1974, "What Does Energy Development Mean for Wyoming?", Human Organization, Vol. 33, No. 3 (Fall) pp. 229-238.

[47] Some say that the unions were to blame for the fact that coal became less economical and that the strikes made coal a less stable commodity.

[48] The Monolith mine remained open during this time with a small work force. The coal went to the Monolith cement plant in Laramie. Both were owned by the Union Pacific. The Monolith mine closed in the late 1960s.

A variety of new business establishments again appeared to serve the rapidly growing population. A shopping center in Hanna (which includes a hardware store, grocery, and clothing store), a pharmacy, motels, and mobile home sales outlets are all new. DeHaan (1972) suggests that Hanna increasingly resembles the typical American suburb with its shopping plaza, low-density housing, underground water, sewer, and telephone lines, fluoridated water, and growth. But even with these amenities, Hanna also has the typical problems of a rapidly growing town; i.e., a severe housing shortage, inadequate water, sewer, and other utility systems, overcrowded school facilities, and an inadequate tax base to deal with these problems.

Nellis's recent description of Hanna's phenomenal growth in 1971 and 1972 suggests a very uncomfortable social and recreational life. The immense social and economic problems of sudden development are not being ignored, however, and a prosperous, more comfortable future for Hanna and Elmo appears to be coming.

In 1954, the year the Union Pacific pulled out of Hanna, the first uranium claims were filed for the Shirley Basin area in the northern part of the school district. Wyoming's known uranium reserves are approximately 63,000 tons (39% of the total reserves for the United States) and half of all known Wyoming reserves are thought to be concentrated at Shirley Basin (The Daily Times, August 14, 1971, p. A-11).

Three companies began operations in the area: Utah International, Kerr-McGee, and Petrotomics. In the mid-1950s, there was some underground

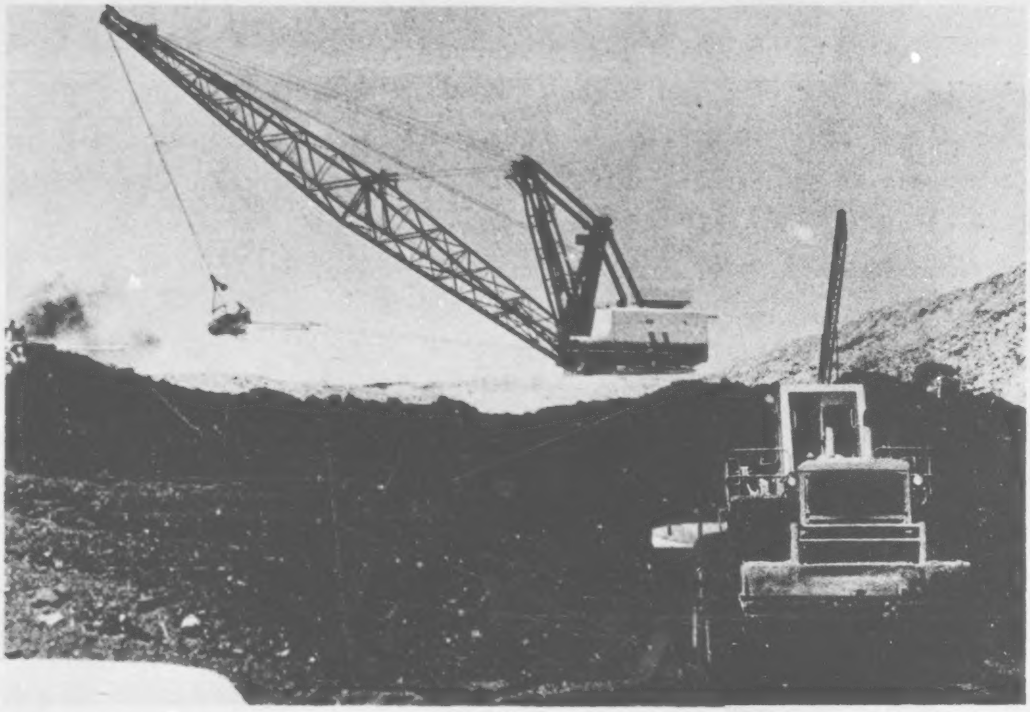

Fig.23. Hanna coal mining operations.

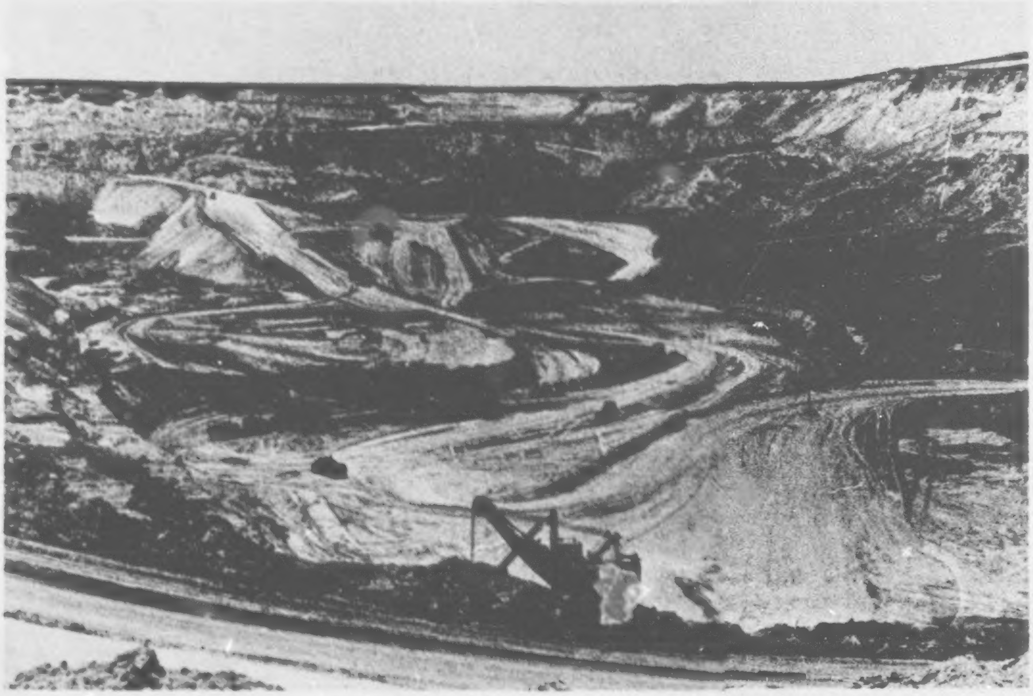

Fig.24. Uranium mines at Shirley Basin, Wyoming.

mining, but by the 1960s all three companies were working open-pit mines; i.e. they were stripping 150 to 250 feet of overlying material to arrive at the horizon where the uranium ores are located in small erratic pods and lenses. The ore is partially processed at mills on site, and the product, called "yellow cake," is shipped to another plant for further treatment and eventual use in nuclear power plants (ibid.).

Initially, many of the uranium miners commuted from Casper, about 60 miles north. By 1959, a trailer camp was established near the mines, and the three companies planned a joint effort to build a town-site in the basin, with schools, shopping area, a restaurant, and a motel. The town, which was completed in 1970, is essentially an oversized mobile home court. Mobile homes and trailers are arranged in concentric circles and, at the center, is the school (grades K-6; older students are bussed into Medicine Bow), and a multipurpose structure which houses the post office, grocery store, laundry, beauty shop, and bar. In 1972, there were about 200 trailers at Shirley Basin and about 800 residents. A majority of the miners continued to live elsewhere, however, both in Medicine Bow (37 miles south) and at Casper (60 miles north).

## The Logging and Timber Industry

Logging and sawmilling in the county are restricted to the forested mountain areas and to the mill towns in the eastern and southeastern portions around Encampment, Riverside, and Saratoga, and to a lesser degree at Elk Mountain and Medicine Bow. At one time, too, even Hanna supported a small mill.

The era of railroad tie cutting predated the formation of the county's forest reserves and continued to be a major source of revenue for numerous timber-cutting outfits for many years following the turn of the century. Extensive tie cutting in the headwaters of the Medicine Bow River and Rock Creek and in the Encampment area was conducted between the 1860s and the 1920s, and in the Coad Mountain and French Creek areas east of Saratoga until the late 1930s. Logs and hand-hewn ties were transported

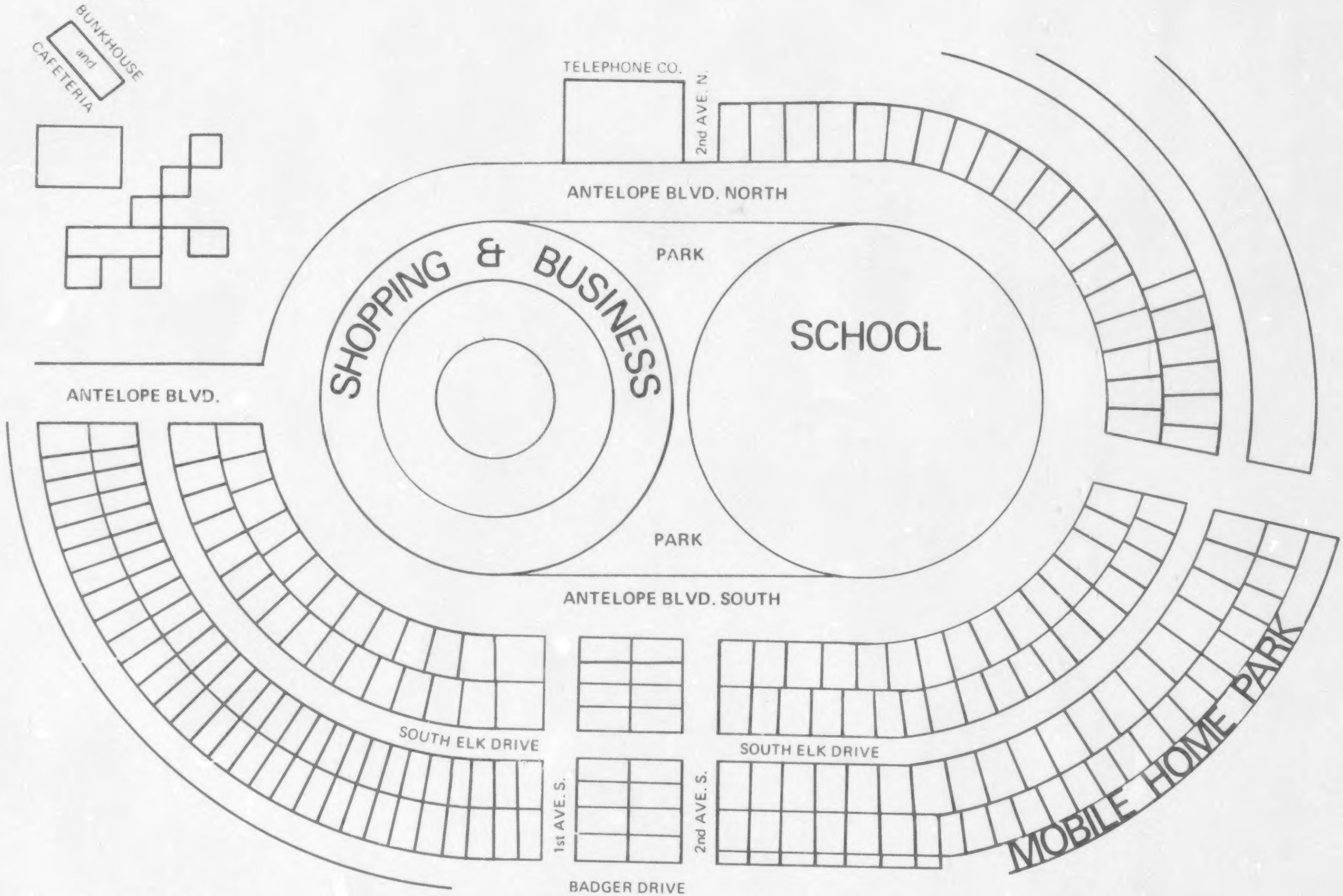
BUNKHOUSE
and
CAFETERIA
TELEPHONE CO.
2nd AVE. N.
ANTELOPE BLVD. NORTH
PARK
SHOPPING & BUSINESS
SCHOOL
ANTELOPE BLVD.
PARK
ANTELOPE BLVD. SOUTH
SOUTH ELK DRIVE
SOUTH ELK DRIVE
1st AVE. S.
2nd AVE. S.
MOBILE HOME PARK
BADGER DRIVE

Fig.25. Shirley Basin Townsite.

chiefly by floating them down major streams and rivers during high water. Some of the last big tie drives were held in 1935 (U.S. Forest Service, 1965a, 1965b, 1966). In addition to ties, mining props and cordwood for commercial fuel were also harvested.

During the late 1920s and 1930s and until World War II, timber cutting activities declined, and not until after the war did they begin to regain their importance in the local economy. Clear cutting methods were introduced, replacing the earlier method of selective cutting. As tie cutting diminished, the demand grew for posts and poles and more recently for sawboards and studding for use in the construction industry. At one time, even Christmas tree exportation, a strictly seasonal venture, was important, but it declined in the 1960s.

In the 1950s and 1960s, one of the larger logging and mill operators had mills in both Saratoga and Hanna. The mill at Hanna helped to alleviate, for a short time, the economic decline of that town, but when it closed in the 1960s, the future for Hanna-Elmo looked more bleak than ever.

The mill at Saratoga went into receivership in the mid-1960s, and not until 1968 was it reopened by an outside company with new money and new managerial skills. Since 1968, the Edward Hines Mill at Saratoga has encouraged new investment in the timber industry by contracting with log cutters and haulers throughout the Platte Valley. In economic terms, the Saratoga mill presently has the largest single local payroll. Excepting the schools and ranching, the mill has one of the greatest monetary impacts on both the town and the North Platte Valley. Ranching, however, is still the most important local industry in terms of historic and long range socio-economic significance.

## Tourism and Recreation

Tourism in the 1950s and 1960s was one of the fastest developing industries in the state. Tourism in Wyoming necessarily includes outdoor recreational pursuits like hunting, fishing, and winter sports. The Medicine Bow Range has become a great attraction to the automobile tourist, as well as to the out-of-state fisherman and hunter in the summer and fall months, and to the skier and snowmobiler during the winter. The mountain streams and the justly famous North Platte River are special attractions to the serious angler. Fall hunting seasons bring hundreds of out-of-state gun and game enthusiasts to the Platte and upper Medicine Bow River valleys. There are numerous herds of elk, antelope, and deer, as well as coyotes and bobcat. Black bear, once prevalent throughout this region, are scarce but not extinct. The grizzly bears and wolves have been gone since the early 1900s when the ranchers hunted them down. (Recent reports from around Encampment, near the Colorado border, indicate, however, that the wolves may be moving back into the county.) Small fur-bearing animals include the beaver, muskrat, raccoon, badger, skunk, weasel, and mink. Trapping, once a popular activity, is now an almost forgotten art. There are also many varieties of game birds, including grouse and wild turkey.

Larson reports that, according to one study, more money was spent by residents and nonresidents for hunting and fishing in 1955, state-wide, than the cash value of all agricultural crops produced that year (Bell, 1957, in Larson, 1965, p. 561). With the growth of private hunting clubs and guiding facilities and the increase in dude ranches and tourist resorts, tourism has steadily increased in importance, becoming one of the primary local industries and the only nonexportable industry in the entire county.

A far larger number of tourists pass through Carbon County, however, going to and from the Teton and Yellowstone National Parks, than ever stop to enjoy the local scene. "In their passion for the national parks," Larson remarks (1965, p. 561), "tourists [have] neglected much else." He goes on to point out the demise of many local summer festivities and the dozens of local shows and small rodeos state-wide which are patronized more by local residents than by tourists. Although the annual county fair and rodeo at Rawlins and the smaller Medicine Bow Days and Encampment Woodchoppers Jamboree continue to draw local crowds each summer, the former Saratoga fair was abandoned in the 1960s due, in part, to lack of support.

The tourist industry in the 1960s had its ups and downs. One primary facility, the Saratoga Inn which was centered around the hot springs, had grown to a sizeable installation during the 1950s, but closed in 1963 with financial problems. New money and new management opened it again in 1967. Meanwhile, Saratoga suffered a local depression with the Inn's closure paralleling the sawmill's closure in impact.

One of the Saratoga Inn's wealthy patrons from the east began to invest locally, buying up ranches. On one ranch, overlooking the Platte Valley, the Medicine Bow Range, and Saratoga, he built an exclusive multimillion dollar resort complex called the Old Baldy Club (named after "Old Baldy" or Kennaday Peak). The club opened for its first full summer season in 1964 and has attracted numerous millionaires as members and guests. They fly into Saratoga in their private executive jets, are chauffered to the club, and bask for a few days or weeks in the anonymity of it all, enjoying the calm and refreshing atmosphere, the clear skies, the wide open spaces, the golfing, swimming, and private fishing, as well as hunting in the nearby hills in season.

A number of tourist developers have seen the rationale behind combining tourism, recreation, and ranching into a year-round enterprise. Some dude ranches and mountain guest lodges advertise as working ranches. These clubs, ranches, lodges, and other hunting and resort facilities, as well as significant private donations, have all contributed to the growing importance of the Saratoga airport.

Winter sports promised to develop into a reasonable business during the 1950s, 1960s, and early 1970s, but never did so very successfully. The only established ski area on the west side of the Medicine Bow Range (where it was accessible to residents of the county) was built near Ryan Park, southeast of Saratoga, in 1941. It is essentially a small skiing operation, designed for family recreational use. There is little room for expansion in its present location. Many local ski enthusiasts make use of nearby Colorado ski areas, such as Steamboat Springs which is only a two-hour drive southwest of Saratoga.

## Promotional Developments

In response to depressed economic conditions in several school district towns during the 1960s, local development committees were organized and promotional schemes designed. In Medicine Bow, a committee to promote local business and to sponser an annual Medicine Bow Days celebration was organized in 1959. Originally conceived to attract the outlying ranchers to town, it soon grew into an important tourist attraction. In 1970, when the interstate highway bypassed Medicine Bow, the town experienced a serious

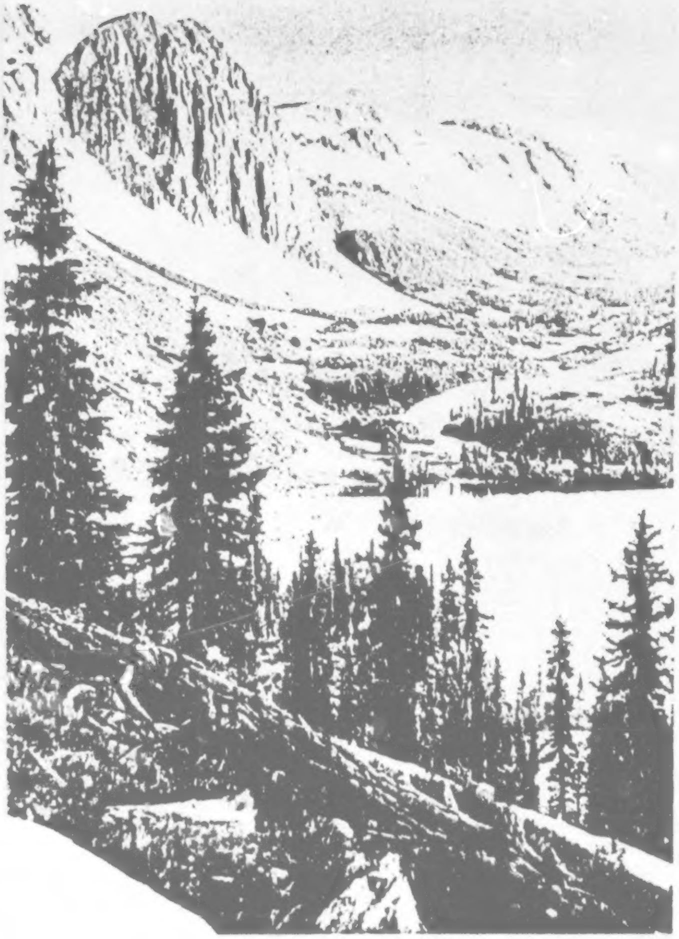

Fig.26. Lake Marie, Snowy Range, Medicine Bow Mountains: The most photographed place in Carbon County.

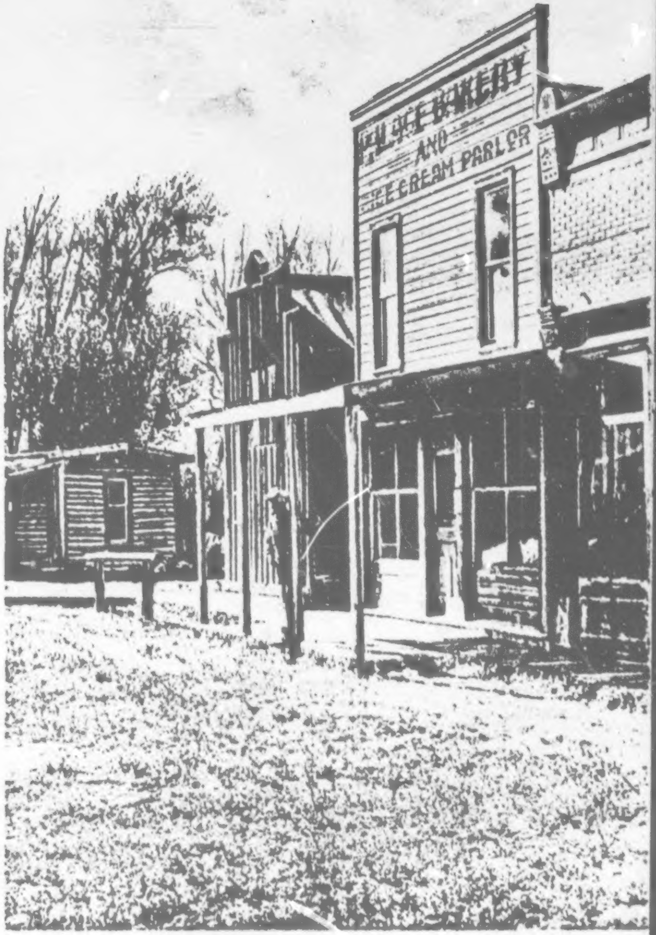
BAKERY
AND
CREAM PARLOR

Fig.27. Grand Encampment Museum, Encampment, Wyoming.

economic decline. Concerned businessmen formed the Shilo-Medicine Bow Days Corporation with plans to "westernize" the downtown area of town, to make it more attractive to tourists. Boardwalks and false-fronted stores were planned. By 1972, however, the plans had "fizzled out," in the words of one organizer, due to the high cost of materials, the added costs of fire insurance, and local apathy.

Hanna was hit hardest by depression when the coal mines were closed. During the 1960s, only an active school board kept local spirits alive, as the town withered. After revival of the coal industry, in 1969, the city council worked with private developers to plan a large housing development for miners, a shopping mall, and the provision of basic utilities and services.

Attracting tourists was the main incentive for the organization of the Grand Encampment Museum, Inc., at Encampment in 1964. By 1967, a museum building had been built and opened for the summer tourist business. Today, the glories of the past--the copper boom and early-day ranching--are enshrined in a very attractive setting.

Saratoga has had several active development committees during the 1960s. One, the Carbon County Development Corporation, was developed as a non-profit organization to promote and encourage local development projects financed through Small Business Association "502" loans. High on the corporation's list of priorities was purchase of the Saratoga Inn, which had gone out of business in 1963. Thirty local investors were involved in the scheme, but interest faded after the Saratoga Inn was purchased and reopened in 1967 by a private investor. That same year, the Inn's new owner and several other Saratoga, Rawlins, and Laramie businessmen (and avid skiers) formed the Southern Wyoming Development Corporation. They planned and promoted a large ski resort complex in the Medicine Bow Mountains at Kennaday Peak (near Elk Mountain and Saratoga). Initially, they encouraged state, federal, and private landowners to consider trading or releasing lands suitable for recreational development in the mountains. Corporation representatives talked with financiers, engineers, and builders, and by 1972, felt rather confident that their development scheme would be a success. A well-designed ski area would, they reasoned, be attractive to skiers and other winter sports enthusiasts from the towns and cities of Carbon and Albany counties, as well as Casper, Cheyenne, Rock Springs and other communities in southern Wyoming and northern Colorado. The development would encourage further recreational investment locally and would bolster the winter economy of the region. Naturally, there was both support and opposition to the resort scheme--the latter by people who wish to maintain local tradition and who place no value on the kind of social and economic climate that such a resort development might bring.

The ironic aspect of recent economic developments in both Hanna and Saratoga, and to a degree in Medicine Bow, is that it came despite local promotional plans. This is so because of the overnight "boom" conditions which attended the redevelopment of the coal mining industry at Hanna. As the mining companies moved into Hanna, local businessmen and developers, whose minds were on economic promotion already, were nearly caught off guard by the speed and intensity of the changes.

## Social and Political Life

### Aspects of Community: Unity and Diversity, Traditions and Values

It should be apparent from the foregoing discussions that the county and the unified school districts within it are in no sense natural units. On the one hand, the county is the end product of a long series of partitions from which all or parts of five other counties have been formed. On the other hand, the unification of school districts within the county is the end product of a series of consolidations, and of state (not local) efforts to equalize funding and create larger, "more efficient" administrative units (see below, pp. 1043-1060).

The school district functions as a social and political unit, but one which has, in a sense, been imposed on the people it serves. Its boundaries do not follow natural geographic boundaries. Its economy is diverse, and there is no economic integration or interdependence within the district. Social ties are extensive, but not all encompassing, and district boundaries do not reflect social boundaries. When full unification was ordered in 1969-1972, there was no common sense of school district identity, no distinct culture which set off Carbon County Unified School District No. 2 from any other larger or smaller conceivable unit.

The school district encompasses nine distinctly organized communities and a large rural hinterland, but the urban-rural dichotomy is only one of a number of ways of sorting out the variety of sub-cultures present. As early as 1937, Knudson noted that differences in tenure of land are expressed culturally, particularly attitudes toward the schools. This distinction (between landowners and renters) holds today:

> Landowners are usually conservative and permanent people much interested in the payment of the bills incurred by school districts. Renters, on the other hand, seem to be a class of people not interested in how the bills for public expenditures are paid, and for that reason are often willing to demand the best in educational facilities, and are equally willing that someone else pay the bill (1937, p. 134).

The category "landowners" actually includes the Union Pacific Railroad Company (and its subsidiaries), as well as a number of non-local corporations and individuals who own ranch land and mineral rights (e.g., Utah International Inc., Marathon Oil Co., Iowa Public Service Commission). However, absentee owners have only indirect impact on local values and district policies. From the local perspective, landowners, the "conservative and permanent people," are generally ranchers; renters, the transients, are for the most part associated with the mining and energy development industries.

It is impossible to divide the district into discrete ranching and mining areas. Obviously, there are mining areas and towns (e.g., Hanna, McFadden, Shirley Basin) which would never have come into existence without the mining industry. Yet these towns provide some services to nearby ranches, while at the same time, ranching towns (like Saratoga, Elk Mountain, and Medicine Bow) serve as residences for many miners.

Miners, wherever they are found, are relatively transient and lack the kind of local identity or commitment that a third generation Carbon County rancher may feel.[49] The district's problem areas in the early 1970s were the rapidly growing mining towns where schools, housing, sewage facilities, and water supply were being stretched beyond their capacities, and planning seemed unable to keep pace with impact. But these sorts of physical concerns can be dealt with. What is more difficult for long-term residents to accept is the influence this growing number of miners with commitments to another cultural system is likely to have on their own (and their children's) set of values, "the Wyoming way of life."[50]

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[49] Transience is not just a characteristic of incoming miners. Native Wyoming people themselves were beginning to follow the national trend toward mobility during the 1950s and 1960s. Between 1950 and 1970, more people migrated out of Wyoming than came in. No other state has as large a number of its people living elsewhere; in 1960, an estimated 50.5% native Wyomingites lived out of state (Larson, 1965, p. 573).

The "Wyoming way of life" is, of course, not limited to Carbon County, nor to Wyoming. It is the local expression of values which characterize much of America--especially rural America. Regardless, the indigenous people of Carbon County feel they are distinct in attitudes and lifestyle from most of the non-local people and institutions they must deal with; i.e., the people representing the Union Pacific, the federal government, national media, and the like.

This feeling of distinctness, the personal identification with Wyoming and its way of life, not only sets the boundaries for the value system, but becomes in itself a part of that system. It is considered a positive attribute to be born in Carbon County (at Elk Mountain, Elmo, Encampment, or wherever), or to have lived there a long time, or at the very least, to call it home. Insiders share memories of bad times and of good, of times when wild game was more plentiful and people were more scarce. They share a deep feeling for a land which they wish to pass unchanged to their children. They share an attitude towards outsiders which is not hostile, but neither is it necessarily friendly and open. More than one local person has been heard to remark that "anyone from east of the Mississippi" is suspect.

From the local viewpoint, outsiders seem not to understand the state and its people. Either they underestimate the beauty and the advantages of living in the state, or they fully appreciate those advantages and exploit the state's resources (hunting, fishing, minerals) to the detriment of the local population and the environment. To the extent they have power to make decisions affecting the county, outsiders are particularly resented--in part because they are outside (and "they should stay that way") and in part because their actions reflect a different set of premises or values.

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[50] The danger in any discussion of values is to oversystematize--to imply a consistent, homogeneous profile or set of beliefs when none so specific is present. The discussion which follows presents some dominant, overriding values which set the "tone" for School District No. 2. The reader, however, should not infer that these are the only values extant among district residents, or that every resident in the district subscribes to this set of values.

The Wyoming ethic is deeply rooted in the Protestant ethic. Work, individualism, and a moral code which reflects the importance of religion and the family are never questioned. It is an ethic appropriate to a sparsely settled frontier setting where hard work, self-sufficiency, straight talk and action are necessary to survival, where the family (not the corporation) is the primary economic unit of production (not consumption), where one man's involvement and participation can affect the outcome of any endeavor. T. A. Larson categorizes all those who fit this description as Homo Wyomo, a term coined originally by another historian, Yale University's Samuel Flagg Bemis (Larson, 1965, p. 572).

In practice, the Wyoming ethic is an integrated set of beliefs and behaviors, but for purposes of discussion, several component parts can be isolated and examined:

Work ethic. Not all work is equally valued. A rancher's work is not separated from the rest of his life; rather they are one in the same. Hours are long, vacations non-existent. Time away from the home ranch is usually spent at stock shows or cattle auctions, or at county, state, or regional fairs and rodeos. Moreover, the products of a rancher's labors are easily visible. The work (and the worker) can be evaluated in terms of what is produced. Other kinds of work are judged by these standards. Work which is not time consuming, which does not yield a visible product is hardly work at all.[51]

Individualism and cooperation. In the West, individualism is related to both isolation and association, two components of culture which bear a strong relationship to the local forms of land tenure and the use of resources. Individualist and isolationist patterns permeate both the rural culture and the town, where lifestyles are strongly affected by the dominant ranching culture.

Isolation not withstanding, the people of Carbon County are not anti-social; neither distance nor the ethic of individualism completely isolate men. Association and cooperation are also highly valued.[52] Carbon Countyites join service clubs, sororities and fraternities, and professional organizations, participating actively at the local, state, and national levels. A number of individuals among them have gained national fame in various social, civic, and trade associations. Ranchers, in particular, make good use of organization membership to establish themselves in wide social networks. Yet, individuals who join expect to join voluntarily.

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[51] One rancher was heard to remark to the co-author of this history; "Working for Abt [Associates] is kind of like retirement."

Wyoming was unionized before the turn of the century, but unions have never been especially effective. In Carbon County, union organizations are found mostly among the miners. In 1963, a strong right-to-work bill was passed into law by the Wyoming Legislature amidst well-organized and vociferous opposition. Despite an attempt to have it repealed in 1965, it remains as a proud emblem of Wyoming individualism.[53]

Individualism is also expressed in attitudes toward the government and any government "interference" in essentially individual concerns. For example, reaction against federal government involvement in state and local programs is routine. A case in point is the strong feeling expressed in the early 1960s against federal aid (in the form of matching funds) for education. (This situation is discussed more fully below under School Financing, pp. 1067-1088.)

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[52] Compare this with the dual ethic of individualism and affiliation among northern plains ranchers in John Bennett's study, Northern Plainsmen (1969, pp. 281-283). This value on affiliation contrasts markedly, however, with recent findings in another study of ranchers in eastern Oregon who "exhibited strong negative aspirations regarding membership or participation in voluntary [civic, social, and trade] associations" (Schultz, 1972, p. 39).

[53] Wyoming was the 20th state of the Union to adopt a right-to-work law. It states, in part, that "employment shall not be conditional upon membership or non-membership in, nor upon the payment or non-payment of money to, a labor organization." It had the strong support of the Wyoming Farm Bureau Federation, the Wyoming Stock Growers Association, the Wyoming Grange, the Associated General Contractors of Wyoming, the Wyoming Truckers Association, and the Wyoming Retail Merchants Association. The pro-union lobby was bitterly opposed. T. A. Larson describes the scene at the state legislature in Cheyenne when the bill was passed:

> The galleries were full: Governor Hansen asked National Guardsmen to stand by during the debate. The bill carried, 15 to 11 in the Senate and 33 to 23 in the House, with substantially a party-line vote--only three Democrats voted for the measure, and only six Republicans voted against it. Governor Hansen did not take a public stand either way until after passage, when he signed it with the statement: "I sincerely believe that this is in the best interest of all the people of Wyoming...the measure is designed to restore full freedom of choice to the working men and women of Wyoming" (Larson, 1965, pp. 537-538).

The concept of localism and "grass roots" control pervades government, politics, and social life in Carbon County (as elsewhere in the state). A long history of suspicion of "outsiders," especially big government, exists. Since earliest times, Wyoming has been a colonial state, with a strong presence exerted locally by outside big business and government. Along with federal aid to education, the outside control over local resources has also been a foci of considerable criticism historically.[54]

Finally, individualism on a more local and personal level, in the schools, is also stressed. In the Platte Valley (Saratoga) Elementary School, for example, "individualized instruction" has been a dominant theme for several years. Throughout the unified district, individualism and the work ethic are deeply enmeshed in the culture of the schools and of the wider society.[55]

Family and kinship. Family ties are important and lasting among ranch families (and it is in this area that there is the sharpest contrast between long time landowners; i.e., ranchers, and the more mobile mining population). Relative isolation from neighbors and the family's economic interdependence (both nuclear and extended family) would seem to account for this valuing of family life, but in the local view, it is primarily tradition, religiously sanctioned, which supports the family structure.

Church and family, too, are intimately and functionally intertwined. The annual "ranchers Camp Meeting" which is held in the mountains near

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[54] This feeling of localism, of independence, is not unique to Wyoming, certainly, but has been reported elsewhere among a predominant ranching population. In his study of eastern Oregon ranching culture, John Schultz discussed "independence" as a value which involves wanting to be free from external control and regulation, "purported by ranchers to be the central theme upon which their 'way of life' is constructed" (Schultz, 1972, p. 81).

[55] In the past, the rugged individualism of the cowboy has been overplayed in the writing of Wyoming and western histories. The same risk of overstatement is present here. For another view of individualism and cooperation working together, see Earl Pomeroy, 1955, "Toward a Reorientation of Western History: Continuity and Environment," The Mississippi Valley Historical Review, XLI (March), pp. 588-589.

Encampment, for example, is frequently referred to as "a family camp meeting" wherein the serious religious tone of the occasion is combined with the opportunity for extended family members and friends to commune with one another in the broadest sense of the word.

Social involvement. There are many opportunities for social participation and leadership--service clubs, unions, cattlemen's and wool growers' associations, and town, county and school district governments. Individuals expect to have some control over local affairs and actively attempt to increase that control. School boards not only make policy, they attempt to influence administration. Town meetings drag on endlessly because dissenters, too, are important and their views must be aired. Concerned citizens write or call their congressmen and state officials (on a first or nickname basis), and expect and receive answers or actions on their behalf. All this can happen because people care about what happens around them, and caring matters in a system still small enough for old-style democracy.

The Wyoming way of life suggests attitudes and an emotional tone which are difficult to put into words without sounding trite. There is a basic honesty, self-respect, and old-time courtesy. In Larson's view, the native people are "simple and direct, courteous and generous, sturdy and tough, independent and self-reliant, aggressive and courageous" (1965, p. 578). These are values which foster much of country music and are expressed by these few lines in a tribute by Tom T. Hall:

> Country is workin' for a livin', thinkin' your own thoughts,
> lovin' your town.
> Country is teachin' your children, findin' out what's right,
> and standin' your ground.
> Country is havin' a good time, listenin' to music, singin'
> your part.
> Country is walkin' in the moonlight. Country is all in your heart.[56]

## The Political Process

Historically, the most intimate encounters that Carbon County residents have had with government and politics have been at the local level. Earlier this century, before transportation and communications systems evolved to their present importance and efficiency, local government units within the county, such as towns, school districts, rural electrification districts, and the county government itself, were sometimes the only well-known governing systems in the rural areas. They provided the first available steps into politics for many local aspirants. The state and national governments often seemed far removed from the rural world. In those days, the majority of Wyoming citizens were rural dwellers, but after 1950, urban residents (in towns and cities over 2,500 population) became the majority. Carbon County, outside of Rawlins city, continued to be small town and rural in nature. To county residents, local government is still of greatest immediate importance, although communication with state and national governments has increased greatly in recent years.

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[56] From the second verse of a popular contemporary country hit, "Country Is" by Tom T. Hall, copyright Hallnote Music Co.

Local government units may be categorized in three ways: county, municipal, and special districts.[57] All incorporated towns of Carbon County, and the city of Rawlins, are governed by the mayor-council system. The mayor in each case operates as what political scientists call the "strong mayor type." City and town elections are purportedly non-partisan, and, to this end, mayoral and council elections have been held separately, in May, not during partisan primary or general elections in the fall.[58] All towns and cities in Carbon County are listed in the accompanying table (Table 2). The primary functions of the town and city governments are to provide services related to the needs of town and city living, such as fire and police protection, street construction and maintenance, sanitation control, water supply, parks and recreation, cemeteries, airports, and other public facilities and buildings for citizen use. Missing from this list are the broad concerns for the general welfare of society; i.e., people concerns. This is an important point of distinction between small and large urban government, and life. Many, if not most of the urban people problems simply do not exist in the small town and rural social environment, and when they do exist; i.e., problems of the aging, the poor, the minorities, they often affect only a few people, or one or two families at most, and are not perceived by most others as problems at all.

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[57] The general framework used for the discussion of Carbon County local government is adapted from John B. Richard, 1974, Government and Politics of Wyoming (Third edition), Dubuque, Iowa: Kendall/Hunt.

[58] This was the arrangement at the time when the Experimental Schools program began.

Table 2

## TOWNS AND CITIES OF CARBON COUNTY, BY TYPE (1970)

| | Incorporated | Unincorporated (company towns) | Other (unincorporated; have U.S. Post Office and store(s) and residences) |
|---|---|---|---|
| West county (unified School District No. 1)[a] | Baggs town<br>Dixon town<br>Sinclair town[b]<br>Rawlins city (county seat) | | Lamont<br>Savery |
| East county (unified School District No. 2) | Elk Mountain town<br>Elmo town<br>Encampment town<br>Hanna town[b]<br>Medicine Bow town<br>Riverside town<br>Saratoga town | McFadden[c]<br>Shirley Basin[c] | Ryan Park<br>Walcott |

[a] Bairoil, an unincorporated Pasco Oil Company town in neighboring Sweetwater County, was consolidated within Carbon County's unified School District No. 1 in 1972. It has no other relationship with Carbon County local government.

[b] Sinclair (formerly Parco) and Hanna were former company towns, owned by Parco (now Sinclair) Oil Company and the Union Pacific Railroad, respectively.

[c] McFadden is owned by Marathon Oil Company, and Shirley Basin by Utah International, Inc. (a uranium mining company) and both are administered by town managers appointed by the companies.

Carbon County was one of the five original counties recognized when Wyoming became a territory. Today it is much smaller than originally, and is now the third largest of the 23 counties in the state. In population, it ranks eighth (according to 1970 census figures). The county seat is Rawlins. County government was created by the state legislature, and the county derives its powers from and is responsible to the state.

> Unlike cities [and towns] there is often considerable state administrative direction and control over county functions particularly with regard to highways and roads, finances, personnel, health and welfare, and education. Counties, therefore, have limited powers and may engage only in such functions as are authorized by the constitution and/or the legislature. Counties may levy taxes and borrow money to carry out designated functions...[but] unlike cities, counties are not even able to determine the form of government desired, nor even to specify the required number of officials. In general then, the county is primarily a state subdivision with local officials in charge of state programs (Richard, 1974, p. 96).

The county government is composed of officers divided into two categories, the executive board members and the elective officers with specific administrative functions. The three-man board of county commissioners is the general governing body. Board positions are elective, in four year staggered terms, but they are part-time only, in contrast with the full-time administrative offices. The county is primarily an administrative subdivision of the state, and the power of the board of commissioners is somewhat limited:

> Although the county board is the "legislative" body of the county government, it possess very few actual legislative powers. Most of the board's legislative powers concern fiscal affairs of the county. Subject to constitutional and legislative limitations, the board levies and apportions taxes, provides for capital improvements, borrows money, and makes appropriations. The board also has some regulatory functions...in the county outside municipal boundaries...(ibid., p. 97).

County government in Wyoming has been characterized as "somewhat disorganized" in the sense that there is no clear line between the legislative and administrative powers. The county has a "vast array of general officers, specific positions, partisan and nonpartisan positions...none of whom are necessarily responsible to any other " (ibid., p. 96). Among the full-time, partisan, and elective positions are county clerk, treasurer, assessor, sheriff, and attorney. Their offices are in the county courthouse at Rawlins. The clerk's primary responsiblities are to keep county records such as land titles, mortgages, vital statistics, marriage licenses, and automobile registrations. He is also secretary to the board of county commissioners, purchasing agent for the county, chief budget officer, and officer in charge of county elections. The county treasurer is responsible for the collection of revenues, keeping custody of county funds, paying county bills, and keeping fiscal records. The assessor has charge of property valuation and prepares the tax rolls for the treasurer based on the assessed valuation of real and personal property in the county. Until 1969, there was an elective county superintendent of schools; some responsibilities for county education were shared by the county superintendent, the county commissioners, and the county treasurer who together formed a five-man district boundary board charged with the responsibility to oversee the separate school district jurisdictions and their fiscal equalization.

The county sheriff is both a state and county official and is the principal peace officer. He works closely with municipal police and with the courts. He and the county attorney, clerk of the district court, and the county coroner are the four county officials who are most closely connected to the state law enforcement and judicial process.

In 1971, a Rawlins-Carbon County Planning Commission, consisting of five officers elected from Rawlins city, and five from the county at large, was organized. A County Planner was hired to oversee zoning and other land use planning and to act as a resource person at the county level for Rawlins city government and for the other towns within the county.[59]

Since World War II, the county commission and a large proportion of other elective county offices have been dominated by the Democratic party. Traditionally, much of the county government power has been centered in Rawlins, and, on occasion, people from the outlying towns and rural areas have questioned whether they truly have equal representation.

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[59] The first (and present) County Planner was a man from Cheyenne; i.e., a man with a Wyoming background who was thought to have Wyoming-local interest at heart. The concern for his Wyoming identity was important, in that he was hired to work with plans affecting land and land use--a potentially volatile public issue.

Within Rawlins, an historically important network of families and others who trace descent to the early sheep and railroad era still wields considerable power both in county and local politics and economics. A voting block based on unionism, as well as on a combination of ethnicity, kinship, and religious identity, has given the Democratic party a strong base in that city and has strongly influenced Democratic party success in the county at large, despite notably Republican sentiments among the rural ranchers.

The Democratic party has long held a strong position in the southern Wyoming counties along the route of the Union Pacific Railroad. In an analysis of party success in national, state, legislative, and county elections between 1948 and 1970, four out of five southern railroad counties have been found predominantly Democratic oriented. Of all 23 counties in the state, Carbon County ranks second only to Sweetwater County as a Democratic county. Richard (1974) classifies Carbon County as "moderately democratic," meaning that since 1948, the Democratic party has carried a majority of the votes, 70% to 84% of the time (see Richard, 1974, pp. 22-23; Figure 1, and Table 5).

Beside county and municipal governments, local government also includes special service districts. The school districts are an example of this type of governmental unit; others include water and sewer districts, paving districts, irrigation districts, fire protection districts, soil and water conservation districts, and rural electrification districts. The state government has also authorized county governments to appoint special boards and commissions to operate county libraries, hospitals, fairgrounds, parks, and the like. The Carbon County Hospital, for example, operates under a special commission appointed by the board of county commissioners. The hospital board usually reflects the partisan leanings of the county commission.

Richard (1974) lists several reasons why special service districts are popular in Wyoming. They reflect locally expressed values of separation of powers and local control: (1) The special district may be smaller or larger than existing jurisdictions, such as the county itself. This is the case for example, with unified School District No. 1, which takes in the town of Bairoil in neighboring Sweetwater County. (2) Existing governmental units may not be able to perform a specific service for financial or functional reasons. Tax limitations are one reason for creating a service district distinct from an already existing governmental unit. (3) Existing local government units may not wish to take on special service responsibilities for administrative or political reasons. (4) There may be "a desire for 'grass roots' control and political independence of established governments." (5) Functional specialization and the relative ease of establishing special service districts seem also to be important.

Special service districts are subject to legislative approval enabling a particular kind of district, and to the will of the people through an election. In many cases, special districts are administered by an elective board or commission, or, as in the case of the Carbon County Hospital, board members are appointed by the county commissioners. Some boards have the power to levy taxes, acquire property, borrow money, authorize expenditures, and contract for goods or services, while others are not empowered with these rights and have to rely on cooperative agreements and contributions from other local districts, county, state or national governments.

One of the recurring problems faced by local government agencies is competition in financing; i.e., the competition for citizens' taxes, special grants, and other sources of revenue. This competition often creates friction among contending local government units, but in the case of the eight former school districts of Carbon County, it has led some authorities (especially in the less financially fortunate districts) to see the value of unification of schools and particularly the consolidation of overall funding and fiscal administration. This did not speed the process of unification, but was an important part of the unification issue between 1969 and 1972. The history of school district unification in Carbon County until 1972 is discussed in the next section.

# SCHOOL DISTRICT NO. 2 AT THE TIME OF THE EXPERIMENTAL SCHOOLS PROGRAM

## The Unification of School District No. 2

The unification of schools in Carbon County, as elsewhere generally in the United States, was a volatile issue. In recent decades, several state-initiated school district reorganization efforts have been made in Wyoming. Each consolidation effort has aroused apprehension and hostility among patrons and local school officials, but the recent and far-reaching changes initiated in 1969 by the Wyoming Legislature have caused the most concern in Carbon County. In this section, the history of school organization, reorganization, and consolidation efforts in Carbon County will be examined in chronological order. Set against the unification effort, the Experimental Small Schools project concept of community involvement and district-wide programming can be seen to have had the catalytic potential, widely recognized by local administrators struggling with the reorganization, of making unification a success.

The early organization of Carbon County schools has been discussed on pp. 991-999 above. Briefly, a county superintendent of schools (at Rawlins) was responsible for overseeing the functioning of public elementary school districts within the county. Initially, the number of districts was 35, reflecting settlement patterns and existing networks of communications. These districts were school taxation units. By 1935, the number of elementary districts had been reduced by consolidation to 26 (plus two high school districts), but the number of school plants around the county had risen from 75 to 86. In part, this increase reflected a trend toward settlement in the isolated rural ranch regions of the county. At the same time, however, the town schools were enlarging, and a number of them supported full-time, four-year high schools which attracted ranch youth to them.

The need for more efficient administrative units, which could only be effected by a sweeping reorganization effort, was recognized in some circles as early as the 1930s. One analyst of the Carbon County system at the time (Knudson, 1937), considering the broader issue of reorganization state-wide, comments:

> That the demand for a larger school unit exists, among the teachers and educational leaders in the state of Wyoming, is attested by the fact that the legislative committee of the state educational association prepared a bill for the legislative session of 1935 which provided for a county unit for support and administration of rural schools. The bill never reached the floor of the house. Further evidence of the demand for larger units is to be found in the consolidations being effected throughout the state.... There are many advantages and disadvantages in any plan of reorganization that might be suggested but any plan would be superior to the system in effect now.

The author went on to advocate a county-based school district, revision of school board elections, revision of administration and accounting in the school district. He laid out one strategy which could be effective, discussed the benefits of a county unit, and estimated the costs and economies under a county unit (ibid., pp. 171-194). He concludes,

> The establishment of a large unit system of education in Wyoming will not be immediately or readily realized. Years of education, planning, reorganization, and consolidation will be necessary before the people of the state will realize the tremendous advantage of a large unit system of organization for the schools. It seems that the thing most cherished is the illusion of "local control." What price local control, if it does not bring greater service and decreased cost?" (ibid., p. 195).

Yet, despite the obvious need and this plea for rational planning for change, only one consolidation was effected in Carbon County in the next 20 years. By 1946, on the eve of the first strong legislative drive for state-wide reorganization of public education, Carbon County still had 25 elementary districts. It would take many more years of hard work in the face of local opposition to reduce the number of districts even further.

In 1947, the first School District Reorganization Law was passed by the 29th Wyoming Legislature and amended in later years to make it more workable (Wyoming Department of Education, 1958). A key component in the law was the utilization of county committees to plan and implement school reorganization. Each county committee was directly responsible to a state committee which reviewed and accepted or rejected county school district reorganization plans. Later, in 1957, the state committee's duties of implementing county school reorganization plans were delegated to the County Boundary Board, a commission composed of the County Superintendent of Schools, the County Commissioners, and the County Treasurer.[60] In 1957, there were only 17 school districts in Carbon County.

By 1965, school reorganization within Carbon County had further reduced the number of districts to 10 (see Table 3 and Fig. 28). In 1968, District No. 22, Brush Creek, was consolidated with Saratoga's Platte Valley School District No. 9. In the following year, 1969, District No. 2, Kortes Dam, was consolidated with District No. 4, Hanna-Elk Mountain, but not before the machinery for a new state-wide reorganization effort was set into motion.

In 1969, a sweeping reorganization of schools state-wide was promulgated by the passing of The Wyoming School District Organization Law of 1969, Chapter 6 of The Wyoming Education Code of 1969. This entire code provided for far-reaching changes in the state's education system by revision of all existing statutes dealing with public elementary and secondary education. It was the culmination of many years of effort toward reform.[61]

The new School District Organization Law outlined the requisite steps for the organization of school districts to

> provide an improved and more equalized educational opportunity for all pupils in the state; provide

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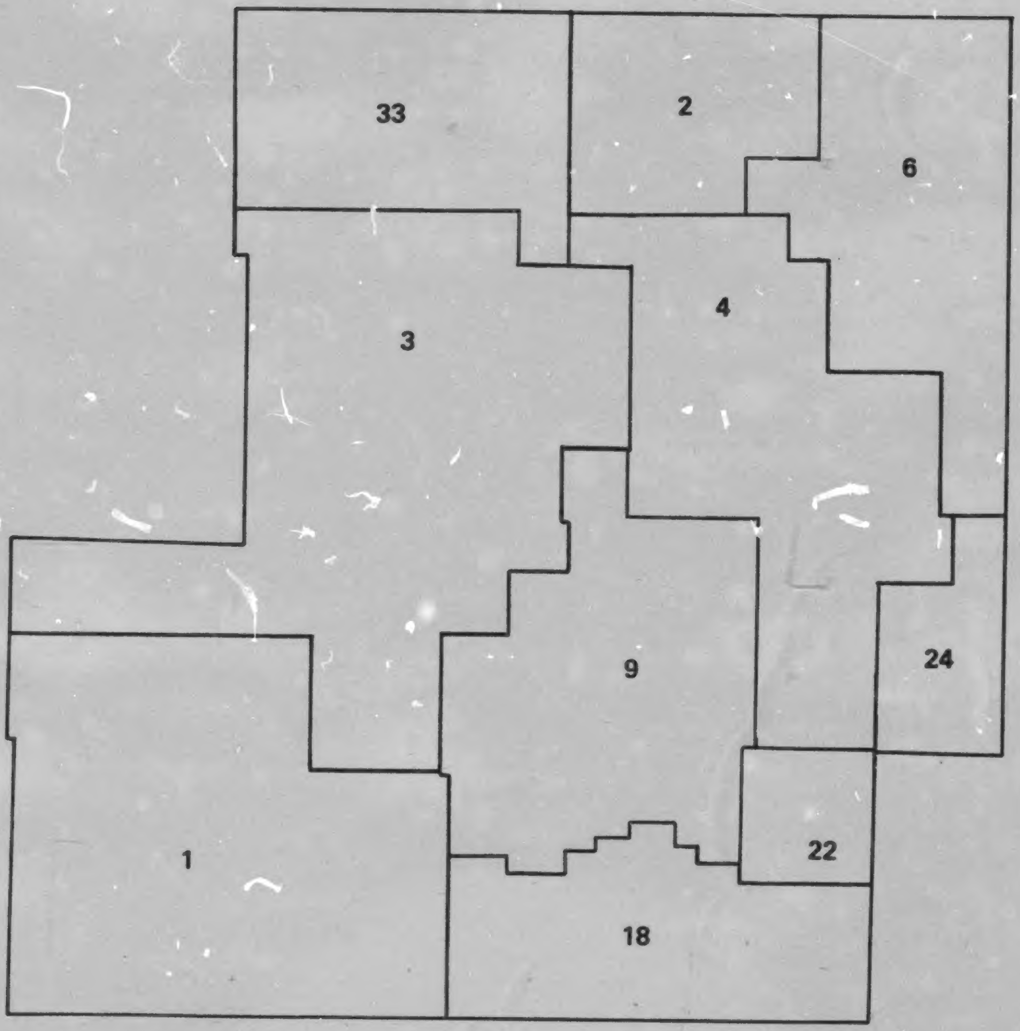
[60] A County Committee for the Reorganization of School Districts was appointed by representatives selected from each school district in a county. In addition, County Boundary Board members were ex officio members with voting rights. This full committee was directly responsible to the State Committee on School District Reorganization. Later, as indicated, the County Boundary Board itself took over the responsibility of rejecting or approving and implementing changes in school districts within the county jurisdiction.

[61] Involved in putting the code through the 40th Wyoming Legislature of 1969 were the School Code Advisory Committee, composed of people actually involved with the school laws, and the Wyoming Education Council, established by the State Board of Education and composed of representatives of many groups interested in education (Wyoming Department of Education, 1970, p. i).



1. Baggs
2. Kortes Dam
3. Rawlins
4. Hanna-Elk Mountain
6. Medicine Bow-Shirley Basin
9. Platte Valley
18. Encampment
22. Brush Creek
24. McFadden
33. Lamont

Fig.28. School districts in Carbon County, Wyoming, 1965.

> a wiser and more efficient use of public funds for education by making it possible to reduce the disparity in per pupil valuation among school districts; to allow the initial planning for the organization of school districts under this chapter to be conducted on the local level; generally enlarge the school districts of the state; and eliminate the different types and kinds of school districts that presently exist and replace them with unified school districts (Section 106).

A "unified school district" was defined under this law as "a district supporting at least grades kindergarten or one through twelve, under the control of one board of trustees and administered by one superintendent of schools, that offers an adequate integrated educational program" (Section 107.c.). According to one State Board of Education member at the time, the overriding criteria for reorganization were to provide "large enough administrative units to be efficient," and equalization of per pupil valuation (Blaine Ronne, personal communication).

At the time in Carbon County, there were eight districts, six of which supported both elementary and high schools and two of which were elementary districts (District No. 33, Lamont; and District No. 24, McFadden).

To begin the mandatory school reorganization, each board of trustees for all districts existing as of December 1, 1968, was empowered to elect one representative to a County Planning Committee for the organization of the unified school district or districts (Section 114). To supervise the reorganization effort state-wide, a State Committee on School District Organization was appointed. It was comprised of the State Superintendent of Public Instruction and members of the State Board of Education and was authorized to appoint a director and to oversee the budgeting and implementation of school organization under the law.

Among its duties, the State Committee ultimately reviewed all organization plans and either approved or rejected them with reasons and recommendations for making the plans acceptable. Initial plans were to be submitted to the State Committee by January 1, 1971, and the last date for filing a final plan with the committee was December 1, 1971. In the event that any county planning committee failed to submit a plan, or a county plan was rejected, the state committee was authorized "to reorganize

## Table 3

### A. STATISTICAL COMPARISON OF NINE CARBON COUNTY SCHOOL DISTRICTS PRIOR TO UNIFICATION (1970-1971)

| School District Name and Number | Grades Taught | District Population | Area in Square Miles | Pupil Population | ADM[a] | Total Assessed Valuation | Pupil Valuation per ADM[b] |
|---|---|---|---|---|---|---|---|
| Rawlins-Lamont No. 3[c] | K-12 | 9,000 | 2,276 | 2,205 | 2,269 | $24,864,011 | $ 10,960 |
| Encampment No. 18 | K-12 | 428 | 677 | 235 | 135 | 1,764,542 | 13,063 |
| Platte Valley No. 9 | K-12 | 1,010 | 1,115 | 503 | 503 | 7,149,938 | 14,214 |
| Baggs No. 1 | K-12 | 650 | 1,476 | 153 | 150 | 4,989,058 | 33,261 |
| Hanna-Elk Mountain No. 4 | K-12 | 904 | 1,512 | 236 | 317 | 11,776,907 | 37,154 |
| Medicine Bow-Shirley Basin No. 6 | K-12 | 1,100 | 824 | 305 | 305 | 12,800,487 | 41,968 |
| McFadden Elementary No. 24 | 1-8 | 70 | 248 | 15 | 15 | 2,422,266 | 161,484 |

[a] ADM=Average Daily Membership, defined as the total number of pupils present plus the total number of pupils absent, divided by the actual number of days the school was in session for the year. When a pupil is absent more than 10 consecutive days, all those days over 10 are deleted. A pupil who withdraws is dropped from membership the day after the last day he attended. ADM figures on this table are rounded to the nearest whole number.

[b] Per pupil valuation per ADM for the entire State of Wyoming for the same period (1970-1971) was $15,308.83.

[c] Rawlins District No. 3 and Lamont Elementary District No. 33 were consolidated on July 1, 1971.

Table 3 (continued)

B. STATISTICS OF SWEETWATER COUNTY ELEMENTARY SCHOOL DISTRICT NO. 25, BAIROIL (1970-1971)

| School District Name and Number | Grades Taught | District Population | Area in Square Miles | Pupil Population | ADM[a] | Total Assessed Valuation | Pupil Valuation per ADM[b] |
|---|---|---|---|---|---|---|---|
| Bairoil Elementary No. 25 (pre-unification) | K-8 | 200 | 432 | 61 | 51 | $17,991,761 | $352,779 |
| (as unified) | K-8 | 200 | 4.875 | 61 | 63[c] | 12,827,608 | 205,000 |

[a] ADM=Average Daily Membership, defined as the total number of pupils present plus the total number of pupils absent, divided by the actual number of days the school was in session for the year. When a pupil is absent more than 10 consecutive days, all those days over 10 are deleted. A pupil who withdraws is dropped from membership the day after the last day he attended. ADM figures on this table are rounded to the nearest whole number.

[b] Per pupil valuation per ADM for the entire State of Wyoming for the same period (1970-1971) was $15,308.83.

[c] This figure is an estimate of 1971-1972 ADM, by the State Committee on School District Reorganization.

such territory into a unified school district or districts or to combine such territory with any contiguous unified district or districts" (Section 113), in order to meet the deadline of January 20, 1972, the latest allowable date for implementation of plans. In the meantime, unified district trustee elections were to have been held for the requisite number of trustee positions before January 10, 1972.

Many of Wyoming's county school districts were reorganized without serious problems and with a minimum of objections. But Carbon County's reorganization effort became embroiled in controversy. To begin the reorganization process the board of trustees of the nine school districts of the county, extant as of December 1, 1968, (including Kortes Dam School District No. 2, which was subsequently consolidated with Hanna-Elk Mountain in 1969) appointed one registered voter each to serve on the County Committee for the Reorganization of Schools. This committee, hereafter called the County Committee, was comprised of seven ranchers, one contractor, and one housewife.[62]

Public sentiment in Carbon County was strongly opposed to any all-encompassing unification plan or plans which might jeopardize the independence of some of the small districts, compromise local control of schools, or disperse local pupil valuation monies. This conservative attitude was one of long standing in the county and earlier had been dubbed a "cherished...illusion of 'local control'" (Knudson, op. cit.). It was an attitude which was to plague the County Committee's efforts throughout the reorganization period.

A measure of consolidation had been effected following the 1947 law, and some people felt strongly that those early reorganizations had sufficiently integrated the schools of the county. Nonetheless, part of the 1969 law stipulated that all former elementary districts, of which there were only two remaining in Carbon County (Lamont and McFadden), must be consolidated with a contiguous district or districts to form one unified district comprised of grades kindergarten or one through twelve.

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[62] County Planning Committee officers included Thomas E. Trowbridge (rancher) of Saratoga, Chairman; L. M. Olsen (contractor) of Rawlins, Vice-Chairman; and Martha J. Hall (housewife) of Lamont, Secretary. Other members (all ranchers) were John A. Evans of Baggs, G. Preston Williams of Elk Mountain, Richard Fisher of Medicine Bow, Dale Merrill of Encampment, James D. Irene of Kortes Dam, and Kim J. Krueger of McFadden.

Pursuant to this order and with a mandate to equalize per pupil valuations, the county committee initially considered a six-district plan within Carbon County. Shortly, however, it designed a three-district plan which would have included adjacent portions of Sweetwater County (Elementary School District No. 25, at Bairoil) and northern Albany County (Districts No. 23 and 24, at Rock River and vicinity). Several meetings were held between the three county committees. Albany County initially agreed to the proposal to cross county lines in a consolidation with Carbon County.[63] Sweetwater County, however, would not consent to merging Bairoil with Carbon County schools. Meanwhile, however, public hearings in Carbon County on the three-district plan had been scheduled for late August and early September, 1970, at Saratoga, Rawlins, and Medicine Bow (the proposed administrative centers for the three districts under consideration). At the last minute, the hearings were cancelled because of controversy over the proposal to merge Bairoil with the Carbon County system. Subsequently, Albany County backed out of the plans and formed a school district with its own county boundaries. The Bairoil issue was not settled until April, 1972.

With the initial three-district plan unacceptable, the Carbon County committee met to devise an alternative plan. Earlier, at a public meeting for Saratoga area residents and school district trustees on August 28, the committee met significant opposition to any alteration of existing school systems within the county. After further consultation with school district trustees county-wide, the committee formally submitted a "six-district" plan which would effect the least amount of change. This plan allowed only for the mandatory consolidation of Lamont elementary district with Rawlins and the McFadden elementary district with Medicine Bow; all other districts in the county would remain unaltered. The new plan met with wide local support.[64]

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[63] By this initial three-district plan, Carbon County would have been carved into three north-south districts: No. 1 consolidating Encampment, Saratoga, and Hanna-Elk Mountain; No. 2 consolidating Medicine Bow-Shirley Basin, McFadden, and northern Albany County; and No. 3 consolidating the Little Snake River area (Baggs, Dixon, Savery) with Rawlins, Lamont, and Bairoil (in Sweetwater County). The rationale given for unifying northern Albany County with adjacent McFadden and Medicine Bow-Shirley Basin districts in Carbon County was primarily their similar geographic and economic situation and the similarity of their "philosophies of education." It had the full support of the Albany County School reorganization planning committee, but was dropped from consideration when Sweetwater County rejected the inclusion of Bairoil with Carbon County.

The rationale for the inclusion of Bairoil in the Carbon County system was more complex, including socio-economic, historic, and financial reasons. It is discussed in more detail later in the text.

By early December, 1970, the state committee had considered the six-district plan, but rejected it as being neither comprehensive nor efficient, and not in compliance with the basic mandate to equalize per pupil valuations. In the following months, the county committee chairman and others of his committee met with the state committee in Cheyenne. Several alternative reorganization plans were considered, including one-district, two-district, and four-district plans, but the county committee, unable to satisfy both its patrons and the state committee, left the ultimate decision for reorganization up to the state.

In the main, county committee efforts were thwarted by strong sentiment in some small districts to retain, at all costs, local school autonomy. Fear of larger districts controlling smaller district schools in a consolidation situation was widespread. Rumors had spread, for example, that "Cheyenne" (i.e., state education authorities at the capitol) recommended consolidation of the Encampment schools with those of Saratoga. The greatest fear in Encampment was that should such a consolidation be effected, their small high school would be closed and its students bussed the 20 miles to Saratoga's Platte Valley High School. Likewise, patrons of Baggs expressed great apprehension at the possibility that consolidation with the larger Rawlins district would give the latter virtual dominance over the disposition of Little Snake River area schools (at Baggs, Savery, and Dixon). Public sentiment in these issues dictated that the trustees and county committee members pursue strict hands-off-the-issue public postures.

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[64] Following the announcement of a six-district plan, the trustees of Platte Valley School District No. 9 took the opportunity to issue a lengthy, eight-part public statement commending the committee and, at the same time, criticizing the state legislature on two interrelated issues of school reorganization and public school financing (Saratoga Sun, v.83, No. 13, October 8, 1970, pp. 1,12). The trustees recognized that the mandate to equalize per pupil valuation by school district changes in the county would not be met by the new six-district plan, but at the same time they pointed out that the legislature's handling of state-wide school financing itself was seriously in need of overhaul. One recommended alternative to total reorganization of districts was more interdistrict cooperative educational services; e.g., the sharing of facilities and of expertise in certain innovative educational programs. And the legislature, they maintained, should consider totally revamping the existing school finance foundation program based on property taxes, by shifting the burden in part to other sources of revenue. They concluded their comments with the statement:

> In summary, the board of education of school district No. 9 urges the adoption of the six-district plan as submitted. It is the only feasible plan for Carbon County. The financial problems of this county cannot be solved at the local level by any type of reorganization. As long as the bulk of the money for the support of education comes from taxes levied on property these problems will continue. We suggest that the solution of this problem lies with the legislature, not with the County Planning Committee or the State Board of Education.

At McFadden, feelings were strong against any unification plan which would disperse their high pupil valuation monies to poorer schools beyond local jurisdiction or control.[65] These and other patron concerns inhibited the reorganization effort county-wide.

An overriding feeling of apprehension, widespread throughout Wyoming, revolved around the stipulation that the unified districts be divided into equalized trustee resident areas. Such "equalization," it was feared, would essentially give a greater measure of power to the more densely populated areas (Strayer, 1973). For this reason, distrust of

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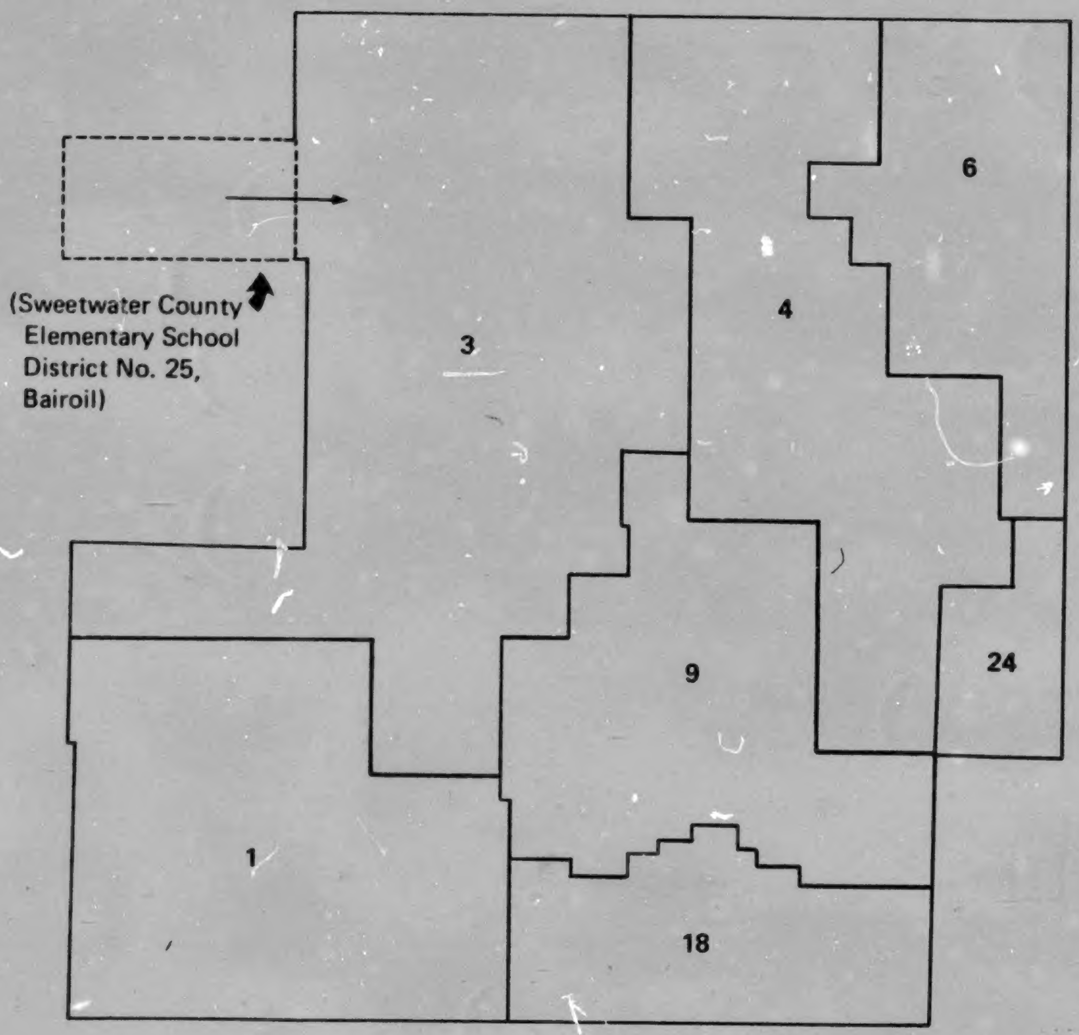
[65] The average pupil valuation for the entire county in 1971-72, when the unification controversy was at its high point, was $17,110.96 per ADM (average daily membership). This figure is arrived at by dividing the total county assessed valuation by the ADM, hence: $68,778,151.00 ÷ 3,552 = $17,110.96. The state average for the same period was $16,224.61. County pupil valuation figures fail to demonstrate the tremendous disparity which existed between individual school districts prior to unification. The district within Carbon County with the greatest pupil valuation per ADM was McFadden, with $161,484.00, while the least advantaged district was Rawlins-Lamont with a low $10,960.00 per ADM, well below both the county and state averages. Bairoil District in Sweetwater County, which was ultimately appended (in part) to the Carbon County unification plan in April, 1972, had an even greater advantage of $352,779.00 per ADM, of which approximately $205,000.00 was included in the final unification plan. The disparity between district pupil valuations is only slightly ameliorated in these instances by the higher operating costs of small rural schools such as McFadden and Bairoil. See Table 2 for a statistical comparison of the nine Carbon County Districts and the Bairoil District, involved in the final unification plan for Carbon County schools.

Rawlins and, to a lesser extent, of Saratoga, was apparent in Carbon County. These and related concerns about consolidation only reinforced localized self-interest during the entire school district reorganization planning stage. (Expressions of these local interests continued after unification, on a much smaller scale, to affect the administration and governance of the county's schools.)

On December 12, 1971, the state committee handed down its mandatory decision to consolidate Carbon County schools into two geographically-large, unified districts, dividing the county east and west, effective January 20, 1972. Former Districts Nos. 4, 6, 9, 18, and 24 (Hanna-Elk Mountain, Medicine Bow, Shirley Basin, Platte Valley, Encampment, and McFadden) were organized as Carbon County Unified School District No. 2. Former Districts Nos. 1 and 3 (Baggs and Rawlins-Lamont) were consolidated into Carbon County Unified School District No. 1. Later, administrative offices were designated at Saratoga and at Rawlins, respectively. (The Lamont and Rawlins districts had been formally unified effective July 1, 1971.) See Figure 29 for the school districts as they existed prior to the December, 1971 Decision and Order (Wyoming State Department of Education, 1971; 1972a).

In creating these two new districts, the State Committee attempted to equalize the assessed valuation of each by giving to Unified District No. 1 five townships near Hanna and Kortes Dam (including Walcott Junction, formerly part of Platte Valley School District No. 9). Still undecided by the courts was the disposition of Sweetwater County Elementary School District No. 25 (Bairoil). But, recognizing the possibility of Bairoil's consolidation with Carbon County School District No. 1, the state committee stipulated that "assessed valuation involving [the] five (5) townships...shall revert to School District No. 2 if the Supreme Court of Wyoming holds that Bairoil is to be included in Carbon County School District No. 1" (Decision and Order, December 12, 1971, No. 31). The transfer of the five townships for their valuation certainly benefited District No. 1, but it was considered an unreasonable decision by some patrons and trustees of District No. 2, and it became a serious issue later.

The Bairoil issue was unresolved for several months, until April, 1972. The controversy centered around two key considerations--logistics and finances. The latter was the primary concern for officials in both Sweetwater and Carbon County schools, while the former was uppermost in the minds of the Bairoil residents themselves.


(Sweetwater County
Elementary School
District No. 25,
Bairoil)
3
4
6
9
24
1
18

1. Baggs
3. Rawlins—Lamont
4. Hanna—Elk Mountain
6. Medicine Bow—Shirley Basin
9. Platte Valley
18. Encampment
24. McFadden

Fig.29. School districts in Carbon County, Wyoming, December, 1971.

Bairoil lies in the northeast corner of Sweetwater County and is geographically contiguous to northwest Carbon County and southeast Fremont County. Its social and economic ties with Rock Springs, the largest city in Sweetwater County, and with Green River, the county seat, are minimal because of separation created by the Great Divide Basin, a barren and roadless desert. Bairoil's primary social and economic ties are with Lamont and Rawlins in Carbon County, five and 38 miles east and southeast, respectively. (In contrast, the drive from Bairoil to Rock Springs is 146 miles, via the shortest route through Rawlins.) Heretofore, the high school students of Bairoil (and Lamont) had attended school in Rawlins, for which the Rawlins school district was financially compensated.

Bairoil's greatest asset was its assessed valuation of $17,991,761.00, which coupled with its very low pupil population of 61, gave it an extremely high per pupil valuation per ADM (average daily membership) of $352,779.00 (see Table 3). The Sweetwater Company committee on school district reorganization proposed to consolidate Bairoil fully into their own unified School District No. 1, Rock Springs, to take advantage of the high valuation. Bairoil residents contested that plan and their case was taken through District Court to the Wyoming Supreme Court (Sweetwater County Planning Committee for the Organization of School Districts v. Leonard Hinkle et al., 493 P. 2d 1050 [Wyoming, 1972]). In March, 1972, the case was relinquished to the state committee for a decision. The state committee entered its Findings of Fact, Conclusions of Law, and Decision and Order on April 23, 1972, effective July 1, 1972. That decision was a compromise by which part--not all--of Sweetwater County Elementary School District No. 25, Bairoil, was formally consolidated with Carbon County Unified School District No. 1. In effect, the committee ordered the consolidation of all of Bairoil district in which the entire pupil population of 61 was resident, and the valuation of that same area, amounting to $12,827,608 ($5,164,153 less than the entire former Bairoil district), with an approximate per pupil valuation per ADM of $205,000.00. (The difference in valuation went to Sweetwater County Unified District No. 1, Rock Springs, as a compromise.)

By the same Decision and Order of April 23, the state committee ordered one of the five townships (T21N R84W, encompassing Walcott Junction) formerly awarded to Carbon County School District No. 1 to revert to School District No. 2. The state committee was not strictly bound by its earlier assertion that all five townships would be returned to District No. 2 because of the fact that not all of Bairoil was included in the consolidation order. The state committee further pointed out that the four remaining townships "must remain in Carbon County School District No. 1 because the ratio of ADM to assessed valuation per pupil must be equalized as nearly as practicable between ...Districts Nos. 1 and 2" (Sections 15-22). At the same time, the bonded indebtedness of the five townships remained the legal responsibility of School District No. 2 in which buildings and other facilities financed by the bonding also remained. (See Fig. 30 for the final disposition of Carbon County School District reorganization and unification: Note the disputed townships and Bairoil in dotted lines.)

On May 15, at the regularly scheduled District No. 2 School Board meeting, in Saratoga, the controversial four remaining townships were discussed (identified as T22N R83W, T23N R83W, T24N R83W, and T25N R84W). At issue was the loss of significant assessed valuation from those townships, at least one of which was the site of potentially large coal mining operations and hence of a predicted increase in assessed valuation. A secondary concern was based on the principle that the state committee's decision not to return the four remaining townships was contrary to its earlier promise and that its action appeared to be a give-away to District No. 1. The latter issue was weakened, however, by the fact that not all of Bairoil district was included in unification with District No. 1, hence the state committee had an excuse for not fully complying with its former decision.

With the financial issue uppermost, a motion was made before the board "to hire an attorney and sue for the 5 (sic, four remaining) townships return to District #2." The motion failed by a vote of four in favor and five opposed, and the matter was dropped with no further consideration of legal action (Carbon County School District No. 2, 1972b).

Trustees from the area which had formerly included the four disputed townships voted against the motion to sue for their return. They felt that the issue did not warrant court action. A subsequent feeling among board members was that they might accomplish a readjustment of school district boundaries involving those townships at a later date, under the provisions of Section 134 of The Wyoming School District Organization Law of 1969 which states:

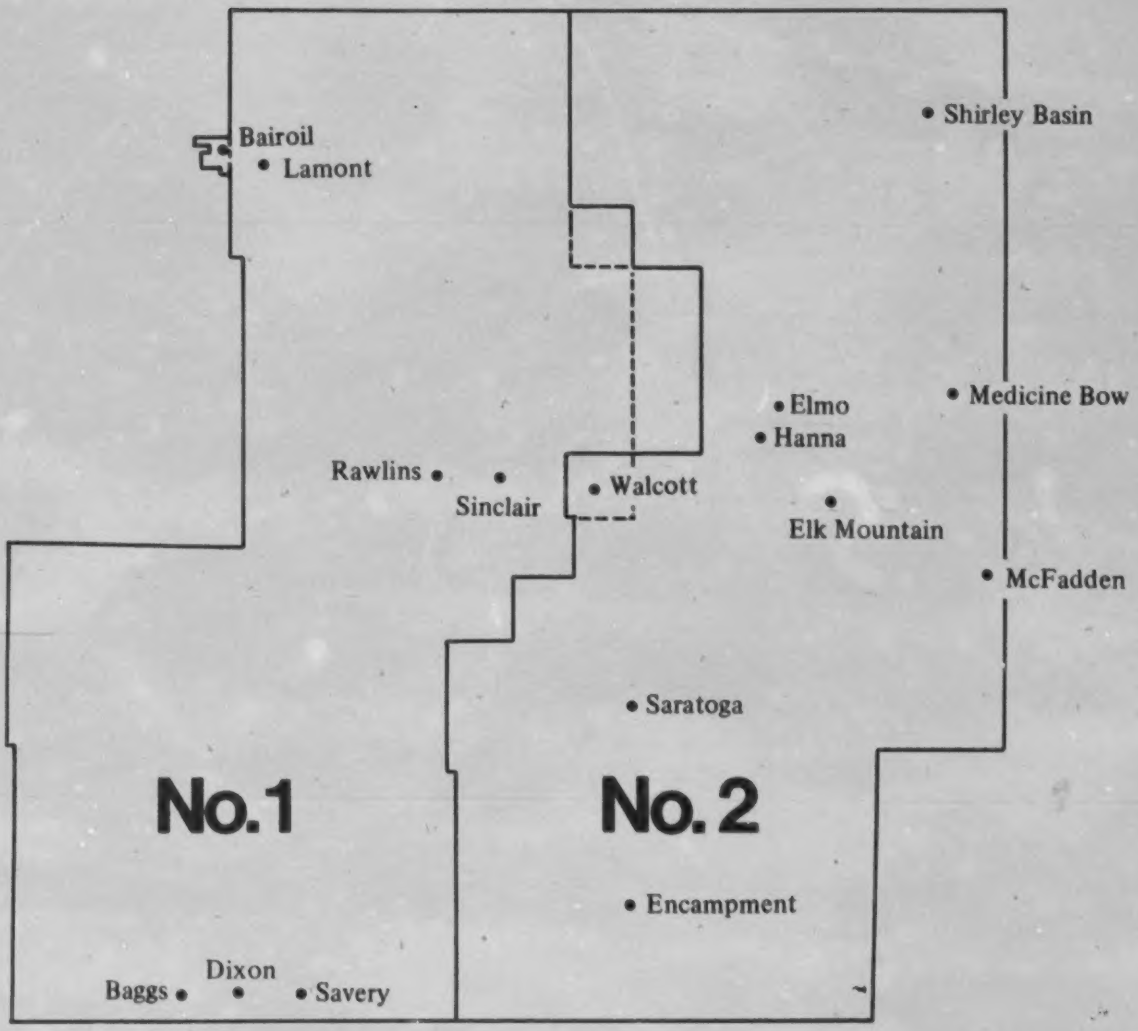

Bairoil
Lamont
Shirley Basin
Elmo
Medicine Bow
Hanna
Rawlins
Sinclair
Walcott
Elk Mountain
McFadden
Saratoga
No.1
No.2
Encampment
Dixon
Baggs
Savery

Fig.30. School districts in Carbon County, Wyoming, following final unification, as of July 1, 1972.

> When all of the territory of the state is included in unified school districts, the boards of trustees of the unified districts in each county shall constitute a committee with the powers and duties of the former county committees. Such committee may submit to the state committee plans proposing organization of school districts which conform to the criteria and procedures set forth in this chapter, provided that the time limits provided by this chapter shall not apply to any such proposed further organization.

School District No. 2 has nine trustees and School District No. 1 has seven, and presumably, should the boards of trustees meet as a committee to consider readjustment of common school district boundaries, and should the trustees of School District No. 2 vote as a block, they could sway the readjustment in their favor. Final arbitration in the matter, however, still rests with the state committee, which would be bound by the original mandate to effect a ratio of assessed valuation per pupil ADM as nearly equalized as practicable.

As conceived by the first Decision and Order of December 12, 1971, effective January 20, 1972, Carbon County School District No. 1 was given an assessed valuation of $36,000,000.00, which when divided by an ADM (average daily membership) of 2,275.74 (based on a pupil population of 2,358) amounted to a pupil valuation per ADM of $15,819.00. By comparison, School District No. 2, less the five disputed townships, had an assessed valuation of $33,200,000.00 and a per pupil valuation per ADM of $27,805.00 based on an ADM (and pupil population) of 1,194. By the amendment of the Decision and Order dated April 23, 1972, and effective July 1, 1972, the assessed valuation of District No. 1 was increased to $43,162,704.00 with a pupil valuation per ADM of $18,374.92. School District No. 2, having received one of the five disrupted townships in return, had an increased total assessed valuation of $35,464,140.00 and new per pupil valuation ADM of $31,495.68. The latter figure is 47% higher than that of District No. 1; compare them with the state average per pupil valuation ADM in 1971-1972 of $16,224.61. The financial discrepancy between the districts is more apparent than real and is ameliorated by the fact that it costs considerably more per pupil to operate predominantly small rural schools such as those in District No. 2 than to operate larger urban schools such as those at Rawlins, in District No. 1 (or at Casper, or Cheyenne).[66]

## Organization of School District No. 2

As required by The Wyoming School District Organization Law of 1969, the election of trustees was completed in Carbon County prior to January 10, 1972. On January 20, the day of implementation of the new unification plan, the first meeting of the Board of Trustees for District No. 2 was held at Rawlins, the Carbon County seat. This was an organizational meeting, called to order by the County Clerk, R. G. Engstrom, who administered the oath of office to the nine assembled trustees (see Table 4 and Fig. 31).

Mr. Artlin Zeiger, Chairman of the former Platte Valley School District No. 9, presided over the election of officers. Dick Hiser, Trustee-at-Large, was elected President; Sonja Collamer of Saratoga was elected Vice-President, William Cooper of Medicine Bow was elected Clerk, and Artlin Zeiger of Saratoga was elected Treasurer.

Potential disunity among board members, given the sudden transition from five formerly independent school districts to one and the atmosphere of hostility to unification generally, was recognized by all, and a conscious attempt was made (and has continued to be made) by every trustee to put aside local animosities, fears, and suspicions. The board resolved to work as one unified body, for the benefit of the patrons and schools of the unified district.

Given the newness of the unification concept, the board moved cautiously at first in making the new district operational. Some key administrative staff appointments and other practical considerations were taken as temporary or interim until the members of the board could determine the best procedures to follow. Recognizing that they must act immediately on some issues, however, they took steps at the first and subsequent meetings to effect district-wide unity and permanency of operations.

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[66] A recent national study on financing rural schools isolates three primary cost factors which exacerbate the problem of financing rural schools: (1) high ratios of professional personnel to students, (2) high costs of pupil transportation, and (3) the expensive production of curricular and teaching materials for small classrooms (Thomas, 1974).

Table 4

TRUSTEES OF UNIFIED SCHOOL DISTRICT NO. 2, 1972

| Trustee Area and Description | Trustee | Occupation | Residence |
|---|---|---|---|
| "E" (Leo, Hanna, Elk Mountain...) | Gerald G. Palm | Rancher | Elk Mountain |
| | Jim Irene | Rancher | Leo, c/o Hanna |
| "F" (Shirley Basin, Medicine Bow, McFadden...) | Howard Brokaw | Rancher | McFadden |
| | William Cooper | Businessman | Medicine Bow |
| "G" (Walcott, Saratoga, Brush Creek...) | Sonja (Mrs. John) Collamer | Housewife | Saratoga |
| | Artlin Zeiger | Businessman | Saratoga |
| | Dick Barkhurst | Rancher | Brush Creek c/o Encampment |
| "H" (Encampment, Riverside, Big Creek...) | Dale Merrill | Rancher | Encampment |
| "I" (School District at large) | Dick Hiser | Rancher | Saratoga |

Two of the most important decisions were the appointment of superintendents and the designation of an administrative center.

At the organizational meeting in Rawlins, on January 20, the board appointed Mr. John Tynon, former Superintendent of Platte Valley School District No. 9, as Interim Superintendent, with particular responsibility over fiscal matters. Mr. James Donahue, former Superintendent of Hanna-Elk Mountain School District No. 4, was appointed Interim Assistant Superintendent, in charge of curriculum and personnel. At the third meeting of the board, on February 14, these interim positions were changed to permanent appointments by the board.

Saratoga was designated as the School District administrative center,[67] housing the offices of the Superintendent. And, after a trial period, the Assistant Superintendent's office was located at Elk Mountain, which placed "central administration personnel closer to all attendance centers" (Carbon County School District No. 2, 1972a).

## Policies of the Board of Trustees

It was agreed that the majority of policy matters in the new district would remain the same as those which existed in the five former districts until a comprehensive policy statement could be prepared, passed, and published. Among the policies and procedures adopted at the first meetings of the board were the following:

Regular meetings of the School Board of Trustees were to be held on the third Monday of the month, at 2:00 p.m., in the administrative offices at Saratoga. Special meetings could be called by the President of the Board, and only that business for which the meeting was called would be considered. The board was to meet at least once per year at each attendance center (which allowed for at least seven special meetings). All board meetings were to be open to the public, and all board action taken in open meetings. Executive sessions (for the purpose of discussing sensitive issues) which could be held with the superintendents and administrative principals present, were closed to the public.

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[67] On a motion during the first meeting by the trustee from McFadden, the board passed a resolution designating Saratoga as the interim administrative center. Saratoga was later officially recognized as the official administrative center, and the legal location for Board of Trustee regular monthly meetings.

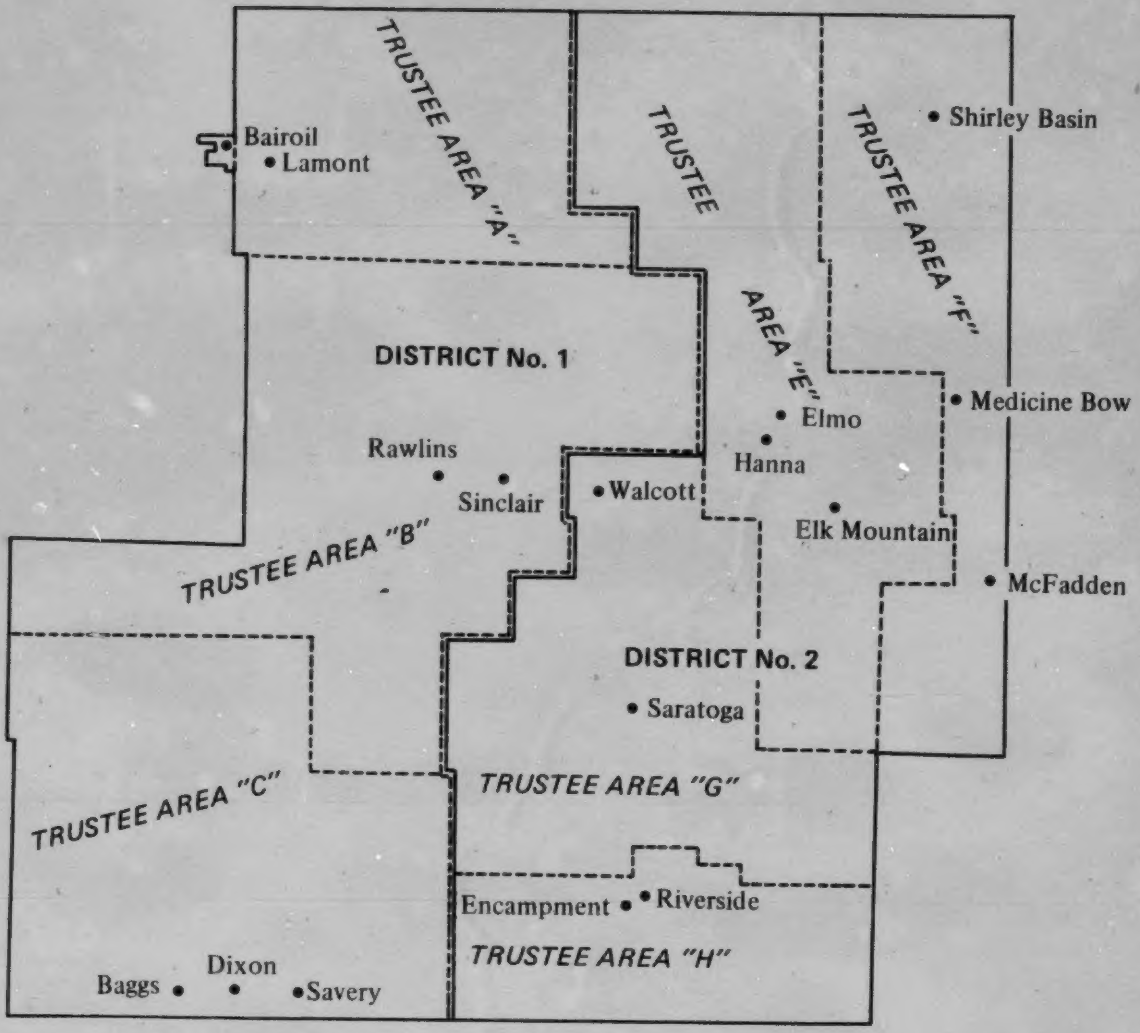
TRUSTEE AREA "A"
Bairoil
Lamont
TRUSTEE
AREA "E"
TRUSTEE AREA "F"
Shirley Basin
DISTRICT No. 1
Medicine Bow
Elmo
Hanna
Rawlins
Sinclair
Walcott
Elk Mountain
TRUSTEE AREA "B"
McFadden
DISTRICT No. 2
Saratoga
TRUSTEE AREA "G"
TRUSTEE AREA "C"
Encampment
Riverside
TRUSTEE AREA "H"
Dixon
Baggs
Savery

Fig.31. Carbon County unified School District No. 2 and trustee areas, 1972.

The Board of Trustees was recognized as the governing body of the school district, and a majority (five) of the nine members constituted a legal quorum for the transaction of business at meetings. No action of the board would be valid unless it received the approval of a majority of the elected board members.

Officers of the Board of Trustees included a President, Vice-President, Clerk, and Treasurer. The President presides, or in his absence, the Vice-President presides. Should both be absent, the assembled members were to elect a temporary chairman to conduct the meeting.

The Clerk's official duties were four: (1) to submit the annual school district fiscal report to the state superintendent of schools, (2) to file with the state superintendent all papers transmitted to him by school officials and others pertaining to the business of the district, (3) to cause a certificate to be endorsed upon every bond of evidence of debt, issued pursuant to law, that the same is within the lawful debt limit of the school district and is issued according to law, and (4) to record all proceedings of the board in books kept for that purpose.

The duties of the Treasurer were three: (1) to have custody of all monies belonging to the district and to make payments from that treasury on order of the Clerk, countersigned by the Board President, (2) to keep an account of the receipts and expenditures of the school district, and (3) to render a financial statement of the district at any time, when required by the Board of Trustees, and to cause a detailed report showing the sources of revenue and the purposes of expenditures to be published at the close of each fiscal year in a newspaper of general circulation[68] within the school district.

Certain legal considerations concerning board operations may be noted, as important in the formal operation of the school district. It became board policy that the board and its individual members were a legally constituted board only when in session and no individual member could presume to speak for the board until proper and legal action had been taken on the matter under discussion in a legally constituted session. Questions regarding the administration of schools, when asked of a board member, were, when necessary, to be transferred to the superintendent, as no board members should be expected to perform duties for which a superintendent had been hired.

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[68] The Saratoga Sun and the Rawlins Daily Times were the officially designated newspapers for School District No. 2.

The Board of Trustees of District No. 2 operated the Carbon County Instructional Materials Center, with services contracted to Carbon County School District No. 1.[69]

Application for all projects funded by the federal government were to be approved by the Board of Trustees.

The board operated under the provisions of the Administrative Procedures Act, as filed with the Wyoming Secretary of State.

## Administrative Organization

The district administration moved quickly to effect the following organization structure. Directly below the superintendents, a second category of administrators was created to oversee each of the five administrative areas of the district (Encampment, Platte Valley [Saratoga], Hanna-Elk Mountain, Medicine Bow-Shirley Basin, and McFadden). These administrative areas of the unified district corresponded to the five formerly independent school districts prior to unification. The five administrative areas encompassed eight attendance centers[70] (Encampment, Saratoga, Hanna, Elk Mountain, McFadden, Medicine Bow, Shirley Basin, Beer Mug), with a total of twelve schools (see Fig. 32).

Four of the administrators of the administrative areas were designated as Administrative Principals. Each shared dual responsibility as an overall administrator of the schools in his respective area with duty as an elementary principal; the administrative principal at Encampment is the K-12 principal. The fifth administrator, at the tiny McFadden Elementary School, is a Head Teacher. All five were directly responsible to the central school district office in Saratoga. The four administrative principals sat on an administrative council which met at two-week intervals. Subordinate to them were high school principals at Hanna, Medicine Bow, and Saratoga. Head Teachers were appointed at Shirley Basin, Elk Mountain, and Encampment Elementary Schools, in addition to McFadden. Beer Mug is a one-teacher school.

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[69] At its second meeting, on January 31, 1972, the Board of Trustees of School District No. 2 moved that District No. 2 take over the operation of the Carbon County Instructional Materials Center, the expenses and services of which were to be shared by both school districts in the county, for the benefit of all schools. The Center, formerly housed at Sinclair, was moved to a new location in the Platte Valley Junior High School building at Saratoga.

[70] No attendance centers were closed with unification of District No. 2, but in Unified District No. 1, the State Committee ordered the closing of the Savery and Lamont elementary schools because of small enrollment. Their students are bussed to Baggs and Bairoil schools, respectively (Wyoming State Department of Education, 1971).

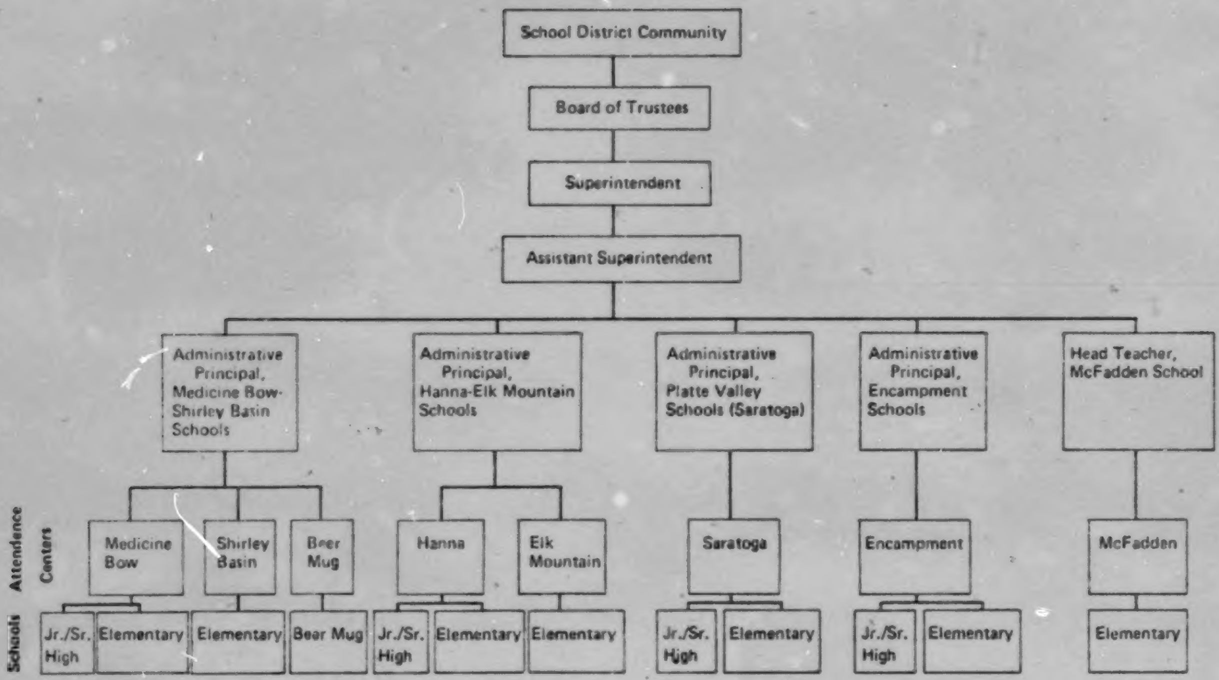
School District Community
Board of Trustees
Superintendent
Assistant Superintendent
Administrative Principal, Medicine Bow-Shirley Basin Schools
Administrative Principal, Hanna-Elk Mountain Schools
Administrative Principal, Platte Valley Schools (Saratoga)
Administrative Principal, Encampment Schools
Head Teacher, McFadden School
Attendence Centers
Medicine Bow
Shirley Basin
Beer Mug
Hanna
Elk Mountain
Saratoga
Encampment
McFadden
Schools
Jr./Sr. High
Elementary
Elementary
Bear Mug
Jr./Sr. High
Elementary
Elementary
Jr./Sr. High
Elementary
Jr./Sr. High
Elementary
Elementary

**Fig. 32. Organizational chart of Unified District No. 2, Carbon County, Wyoming (1972)**

## School Financing

### The State Foundation Program

The history of Wyoming public school financing provides an interesting account of diverse and changing policies and of a gradual trend toward equalization of state school support.[71] In the early years of the twentieth century, support of public education was primarily in the hands of the local public. Wyoming, on the whole, was not unlike the rest of the nation. In 1900, for example, schools across the nation received only about 18% of school revenue from state sources, and in 1930, only 15%. By 1968, however, the picture had changed significantly, and schools received, on the average, over 40% of their aid from state governments.

In Wyoming, Land Income Funds, established in 1892 have provided the basis of state funding to schools. A total of 3.5 million acres of land was set aside in Wyoming as school lands (sections 16 and 36 of every township). The proceeds from sale or lease of these lands and from mineral royalties have been placed in a permanent fund called the Common School Permanent Fund, which had grown to over $93 million by 1971. Historically, the largest income to the Land Income Fund has been from oil royalties paid to the state by the federal government. Thirty-seven and one-half percent of federal oil royalties are returned to the state, of which 50% are paid into the Foundation Fund (i.e., 18.75% of all royalties received). Payments to the schools are derived from interest on this fund, along with grazing fees, agricultural leases, and mineral prospecting leases on the school sections. This constitutes the Common School Land Income Fund. The revenue from this fund is distributed twice annually to county treasurers, who redistribute it to the school districts on the basis of the preceeding annual school census (i.e., the number of children aged 6 to 21 resident in the district).

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[71] This discussion of the history of Wyoming public school financing in general and of the Wyoming Foundation Program specifically, relies heavily on two sources: The Wyoming School Foundation Program (Wyoming Department of Education, 1972b) and a publication by the Citizens Committee on Educational Problems, entitled Public Education in Wyoming (Citizens Committee, 1954). Although legislation subsequent to 1972 has changed some facets of the Foundation Program, the 1972 account is used in this discussion for its relevancy to the setting in which the National Institute of Education's Experimental Schools project was implemented in Carbon County School District No. 2.

During the 23rd Wyoming Legislature in 1935, a formula for distributing certain "equalization funds" to school systems across the state was adopted, requiring a minimum local district tax levy to qualify. This is popularly called the "qualifying levy." In the 1940s, a general aid fund to public schools was established, and a state-wide 6 mill property tax was levied specifically for school support purposes.

By the mid-1950s, there were five major sources of state revenue for school districts:

1. The Land Income Fund, distributed on the basis of school census.

2. A Government Royalty Fund, distributed on the basis of the number of teachers and drivers of bus routes in a district. Districts with their own sources of wealth had the advantage of being able to employ more teachers and drivers than poorer districts, for the same number of children.

3. The State Tax School Fund, distributed on the basis of one-half the Government Royalty Fund and one-half the average daily attendance. The latter was not adjusted for large or small districts.

4. An Equalization Fund, distributed on the basis of teacher units according to need. The amount was small.

5. A General Aid for Public School Contingent Fund, its distribution based one-half on the formula for the State Land Income Fund (i.e., on a school census basis) and one-half on the formula for the Government Royalty Fund (teacher-driver basis). Qualifying mill levies were required for the distribution of this fund.

With these state revenue sources formally established, a philosophy of state aid to education was firmly grounded in Wyoming. The way was thereby set for significant improvements in the system of state foundation aid to schools. New laws affecting public school financing were passed by the 1955 33rd Wyoming Legislature. Much of the impetus for change and improvement came from three related sources, the Wyoming Citizens Committee on Educational Problems, the Legislative Interim Committee, and a Governor's Conference on Education.

In 1953, the 32nd Wyoming Legislature authorized the Legislative Interim Committee to make a comprehensive study of public school financing in Wyoming, to be reported at the next biennial session of 1955. The Interim

Committee's sub-committee on education supported the idea of involving state-wide citizen representatives directly in their study, and, to this end, organized the Wyoming Citizens Committee on Educational Problems.[72] This committee was designed to assist in defining a "minimum" educational opportunity, in determining methods by which that opportunity should be implemented to the benefit of each child, in determining the cost of providing it, and in determining if school districts, counties, and the state government were financially able to support such an opportunity using existing sources of revenue, and if not, to suggest additional revenues which might be made available for school support purposes.

A comprehensive Foundation Program plan was prepared by the Citizens Committee and formed the essential basis for the enactment of the School Foundation Program statutes passed unanimously by the 33rd Wyoming Legislature in 1955.

The weighted classroom unit (CRU) was chosen as the measure of educational need in the schools. This unit of measure was based, at first, on the ratio of the average daily attendance of pupils to the number of classroom teachers employed. By this plan, every school was guaranteed at least one classroom unit. The CRU cost was designed to reflect the salary of the teacher, the cost of instructional materials, equipment, operation and maintenance, certain fixed charges, and the cost of auxiliary services. Additional special units were allowed for kindergarten, auxiliary or non-teaching professional personnel, and for special programs.

The initial value of one CRU in 1955 was set at $5,500 based on the average cost of a basic program, or the effective expenditure, of education in 1953-54.[73] It did not cover such auxiliary expenditures as transportation, isolation and tuition, capital outlay, debt service, or programs within the school that are normally considered to be self-supporting, such as the school lunch program.

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[72] The Citizens Committee consisted of five executive staff (including two out-of-state consultants), a standards sub-committee (13 members), an organization sub-committee (16 members), and a finance sub-committee (17 members), as well as supportive research and clerical staff. Carbon County was represented on the committee by one member, Mr. Robert B. Lee of Rawlins.

Initially, the program made use of the weighted classroom unit based on the average daily attendance (ADA)[74] of pupils in a school district. In 1959, this adaptation was modified to make use of the average daily membership (ADM)[75] as the basis of computation.

The CRU amount, initially set at $5,500 in 1955, was subsequently raised to $6,200 in 1959, and after several changes, to $12,000 in 1972. Actual expenditures, however, have risen at a much faster rate; hence the CRU amount does not cover the total effective expenditures as expected. It is estimated that in 1970-71, for example, the effective expenditure cost overrun on the state average was more than $3,000 above the dollar value of the classroom unit funds available in the Foundation Program (Wyoming Department of Education, 1972b, p. 3, Fig. 2).

The computation of the classroom unit is fairly straightforward. First, the total number of classroom units and special units are computed for the school (by a formula described below). This figure is multiplied times the CRU amount allotted for the year. To this dollar figure is added additional foundation program costs, usually auxiliary service expenditures. From this total cost is then subtracted a variety of local district resources (described below). The resulting figure is the Foundation Program Entitlement, an amount which is credited to the school district. Note that in some instances the amount credited is neither the real total cost, nor is it all payable to a given district. In instances where local resources are high, little or none of it is paid by the state. Foundation entitlements are considered to be only a guaranteed minimum account for a district, shared by the state and the district.[76]

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[73] The CRU figure of $5,500 was arrived at by dividing the total effective expenditures reported for the 1953-1954 school year state-wide by the number of teachers.

[74] ADA, or Average Daily Attendance, is defined as the total days attended by all pupils divided by the total days the school was in operation during the year (180 or more).

[75] ADM, or Average Daily Membership, is defined as the total number of pupils present plus the total number of pupils absent, divided by the actual number of days the school was in session for the year. When a pupil is absent more than 10 consecutive days, all those days over 10 are deleted. A pupil who withdraws is dropped from membership the day after the last day he attended. Schools are not penalized for pupils who are absent for relatively short periods of time.

The CRU computation follows detailed guidelines. First, the CRU for each school is calculated using a formula which determines the number of pupils per teacher in schools of variously defined sizes. The average number of pupils per teacher in each size group becomes the divisor for the group. Pre-established classroom unit calculations, based on the state average, are shown for elementary and high schools in Tables 5 and 6.

Special classroom units are allowed for kindergartens, auxiliary or non-teaching professional personnel, and for special programs, as follows:

The instruction of exceptional or handicapped children. One CRU is allowed for every 10 pupils identified as educable retarded, or as having physical, psychological, or social disabilities which impair learning. One CRU is also allowed for every eight trainable retarded children. For fewer children in this category, a proportional fraction of a unit is allowed. Two conditions for the computation of special education units are that the pupils may not be included in regular classroom unit computations and that all must be taught by a properly qualified teacher or teachers.

Occupational classroom units. These units are allowed on the basis of the number of full-time vocational teachers employed in vocational education. One CRU is allowed for each occupational teacher who is properly certificated and who teaches occupational subjects full-time in grades 7-12. Anyone less than full-time is allowed a proportionate fraction of the CRU. Schools with fewer than 125 students must have at least five pupils per occupational classroom, and schools in excess of 125 students must have at least 10, in order to qualify. Other restrictions are outlined on the basis of the definition of occupational education.

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[76] In some instances, supplemental aid is added to a district's Foundation entitlement where districts already levying the maximum tax (22 mills in unified districts) also have less than the state-wide average assessed valuation per CRU. Additionally, provision was made in the 1969 school district reorganization statutes for the state to increase temporarily the Foundation entitlement in districts where a financial hardship was created by unification.

Table 5

ELEMENTARY SCHOOL DIVISORS FOR CLASSROOM UNIT COMPUTATION[a]

| ADM | Divisor | Minimum units | Maximum units |
|---|---|---|---|
| Fewer than 25 | 10 | 1.00 | 2.40 |
| 25-44 | 15 | 2.40 | 2.93 |
| 45-89 | 18 | 2.93 | 4.94 |
| 90-139 | 20 | 4.94 | 6.95 |
| 139-199 | 23 | 6.95 | 8.65 |
| 200+ | 25 | 8.65 | |

[a] An elementary school is defined as one having two or more teachers and offering instruction of grades 1-6, or 1-8. Separately organized junior high schools, grades 7 and 8, with a minimum of 30 pupils totally and a minimum of three teachers and a principal may be considered as separate schools to which the elementary divisors are applied. In six-year high schools, grades 7 and 8 may be considered either separate junior high schools or part of an elementary school. In three-year junior high schools, grades 7 and 8 are counted as a junior high school unit, and grade 9 with secondary school. In short, classroom units in grades 1-6, or 1-8, however defined, are calculated on the basis of elementary school divisors.

Table 6

SECONDARY SCHOOL DIVISORS FOR CLASSROOM UNIT COMPUTATION[a]

| ADM | Divisor | Minimum units | Maximum units |
|---|---|---|---|
| Fewer than 25 | 10 | 1.00 | 2.40 |
| 25-59 | 12 | 2.40 | 4.91 |
| 60-109 | 15 | 4.91 | 7.27 |
| 110-169 | 18 | 7.27 | 9.39 |
| 170-239 | 21 | 9.39 | 11.38 |
| 240-299 | 23 | 11.38 | 13.00 |
| 300+ | 25 | 13.00 | |

[a] A secondary school is defined as one from grades 9-12.

Kindergarten units. In districts where they apply, kindergarten units are given on the basis of one CRU per each group of 50 pupils attending half-day sessions. Greater or smaller numbers are allowed proportional units. Kindergarten pupils are not included in the regular CRU computation for schools.

One-teacher school units. One CRU is allowed for each one-teacher school, regardless of the number of pupils in average daily membership. These units are justified by the fact that the single greatest item of expense is the salary of the teacher, an expense which remains constant despite a change in the number of pupils. To be eligible, the one-teacher school must be located outside of city limits.

Auxiliary units. These allow for administrative, supervisory, and auxiliary school staff, such as superintendents, principals, coaches, guidance counselors, librarians, school nurses, and others needed to render service to large groups of pupils or to entire schools or school systems. Auxiliary units are computed by adding together the number of CRU for elementary, junior high, and secondary schools, vocational classes, kindergartens, special education classes, and one-teacher schools, and dividing the total by seven.[77]

School districts are required to calculate their total classroom units annually. In districts where a large increase in pupil population occurs, recalculation procedures are applied. Generally, recalculation is effected following a report to the State Department of Education after the 60th day of school.

Additional effective expenditures also include transportation, maintenance, and school bus operational costs. A district may include in its calculated costs up to 75% of the expenditures for transportation actually made during the previous school year. Additionally, 1/6 of the amount spent on capital outlay for the purchase of buses may also be included.

Tuition costs paid by one district to another, for students crossing district lines, may be credited for the full amount.

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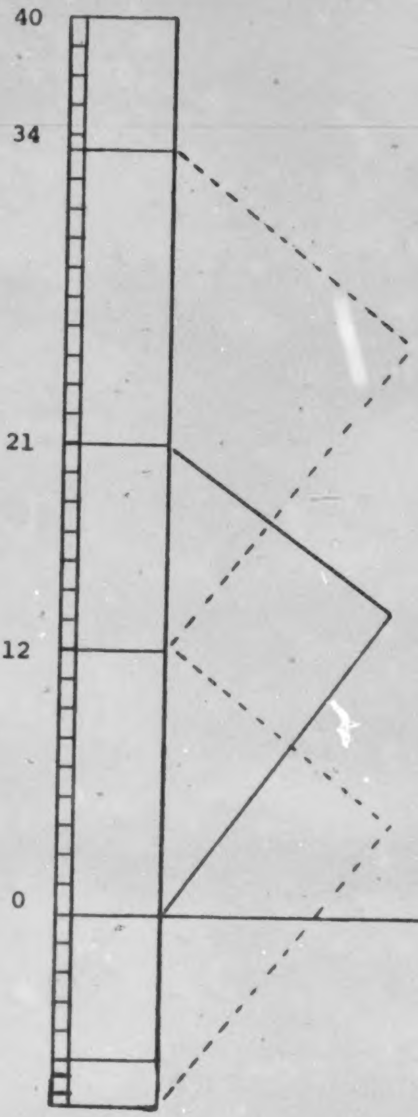
[77] The divisor seven was set by the 1969 Legislature, reflecting a compromise over the average number of auxiliary personnel in schools in 1969.

Up to 75% of the cost of isolation and homebound payments may be included. Any student isolated from regular school bus routes may be reimbursed up to $75 per month for private transportation or for board and room at a site nearer the school. The definition of isolation in each district is up to the discretion of the Board of Trustees. Similarly, a district may pay for the maintenance of homebound students.

Under the category of handicapped children, the district may apply for total reimbursement under the Foundation Program for funds actually expended the previous year for children who have mental, physical, psychological, or social maladjustment and hence are required special education facilities or programs (as defined by the State Board of Education).

Certain guidelines have been established which must be followed for a school district to be eligible for School Foundation Program Funds in the first place. Among them is a required local tax effort which includes mandatory tax levies of 6 mills (.006 of $1), state-wide, for the Foundation Fund, and a 3 mill maximum county tax for teachers and bus drivers. In addition, there are certain qualifying levies which cannot exceed 21 mills, and discretionary levies (levied at the discretion of the Board of Trustees) not to exceed 22 mills. A further six mill levy, which brings the total to a maximum of 40 mills above the mandatory levies, is allowed only upon voter approval (see Fig. 33). (Bonded indebtedness of a district is separate from these tax levy considerations and is not considered in the Foundation Program accounting. Bonding must not exceed 10% of the district's assessed valuation and is subject to voter approval.)

Besides the revenue from mandatory local tax efforts and the district's share of the 12 mill county tax, other revenues are calculated as local resources. A General County School Tax, not to exceed 3 mills, provides a fixed revenue for each teacher and bus driver. The School Land Income Fund provides revenue in the form of a flat grant to the schools. All fines and forfeitures derived from the Justice of the Peace Court, or other county or state officials (e.g., for traffic violations, game and fish violations, etc.) are turned over to the county treasurer in the county in which



Last six mills must have voter approval.

Up to 22 mills may be levied at board discretion. (Districts with low valuation levying the full 22 mills receive special aid equivalent to seven mills on state average valuation.)

DISCRETIONARY LEVIES

Nine mills must be levied to qualify for Foundation aid.

QUALIFYING LEVIES

Twelve mill county tax.

MANDATORY LEVIES

Six mill state-wide tax for Foundation Fund.

Three mill maximum county tax for teachers and drivers.

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*Source: Wyoming State Department of Education, The Wyoming School Foundation Program (1972b, page 15, Figure 5).

Fig. 33. Property tax levies for Wyoming public schools (1972).

they are collected, to be distributed to the schools on the basis of the school census. Forest reserve funds accrue from revenue received from each federal forest reserve in the state, 25% of which is returned to the state treasurer who distributes it to the counties in which it is collected. The county commissioners are empowered to distribute this revenue between the school fund and the road fund, but must apportion at least 5% to each. Revenue from the Taylor Grazing Act collected by the federal government on grazing permits and leases or sales of public land are turned over to the state treasurer, who distributes the money to the counties in which it is collected. The county treasurer then allocates it according to fixed regulation. Motor vehicle registration taxes are distributed to school districts by the county treasurer in the same proportion as property tax levies. And finally, 75% of all tuition received in a district for educating students resident in other districts is also counted as a local resource. (Tuition for mentally or physically handicapped students in special education is not included.) In instances where students cross district lines to attend schools, the amount of tuition is fixed by contract. In recent years Carbon County School District No. 2 has paid tuition to Albany, Natrona, Laramie, and Goshen Counties.

As can be seen from the above description of revenue sources, the cost of the Foundation Program is shared between local and state jurisdictions. The balance of the sharing above the equalization level is determined primarily by the level of assessed valuation in a school district. School districts which receive relatively large amounts of revenue through property taxes receive less support from the Foundation Fund than those districts where a comparable levy raises a smaller amount of money. Local ability and the level of local effort are considered in determining the state share of funding.

The Foundation Fund entitlement computations for Carbon County School District No. 2 for 1972-1973, the first full year of unification, are shown in Table 7. All taxes levied in Carbon County in 1972 are shown in Table 8; those pertaining directly to the schools are asterisked (*).

Table 7

## FOUNDATION FUND ENTITLEMENT COMPUTATIONS, CARBON COUNTY SCHOOL DISTRICT NO. 2, 1972-1973

| Expense Category | Amount | Totals |
|---|---|---|
| Classroom units | | |
| Elementary | $35.539 | |
| Junior high | 11.630 | |
| Secondary | 21.164 | |
| Vocational | 10.283 | |
| One-teacher school | 1.000 | |
| Kindergarten | 2.001 | |
| Special classes | 1.000 | |
| Sub-total | 82.617 | |
| Auxiliary units | 11.802 | |
| Total | 94.419 x $12,000 = | $1,133,028.00 |
| Additional costs | | |
| Operation and maintenance of buses (3/4) | $52,635.37 | |
| Capital outlay for purchase of buses (1/6 of total for 1968-1972) | 13,515.15 | |
| Isolation payments (3/4) | 13,967.22 | |
| Tuition costs | 3,505.25 | |
| Supplementary special education costs | 6,697.30 | |
| Total | 90,320.29 | 90,320.29 |
| Total Foundation Program cost | | $1,223,348.29 |
| Local resources | | |
| 12-mill county tax | $349,231.22 | |
| District's current assessed valuation (43,309,152) x nine mills | 389,782.37 | |
| General county school tax | 37,350.00 | |
| Land Income Fund receipts | 77,044.84 | |
| Fines and forfeitures | 23,514.61 | |
| Forest reserve funds | 337.54 | |
| Taylor Grazing Act funds | 1,316.55 | |
| Motor vehicle fees | 58,281.78 | |
| Total local resources | 936,858.91 | 936,858.91 |
| Foundation Program Entitlement | | 286,489.38 |
| Total state aid | | $ 286,489.38 |

## Table 8

## CARBON COUNTY, WYOMING TAX LEVIES FOR THE YEAR 1972; STATE AND COUNTY TAXES ON VALUATION OF $74,984,055. (SCHOOL-RELATED TAXES ASTERISKED "*")

### A. State and County Taxes

| Description | Mills |
|---|---|
| State Tax | |
| *State School Fund | 6.00 |
| County Tax | |
| County General Fund | 5.46 |
| *County General School Fund | 1.06 |
| County Bond Redemption Fund | 1.00 |
| County Bond Interest Fund | .60 |
| County Library | .43 |
| County Hospital | 2.25 |
| County Fair | .27 |
| General Welfare Levy | 2.00 |
| County Museum | .00 |
| Parks and Recreation | .33 |
| *County Wide School Levy | 12.00 |
| Total State and County Levy | 31.40 |

### B. Taxes in School District (unincorporated area)

| School District | | Valuation | State and County | Special School Taxes | School District Bonds | Total |
|---|---|---|---|---|---|---|
| 1 | (1 (old 1) | $ 4,934,243 | 31.40 | 22.00 | 10.00 | 63.40 |
| | (3 (old 3) | 20,512,868 | 31.40 | 22.00 | 4.00 | 57.40 |
| | (3-33 (old 33) | 4,476,965 | 31.40 | 22.00 | .00 | 53.40 |
| * 2 | (old 4)<br>(old 6)<br>(old 9)<br>(old 18)<br>(old 24) | 43,309,152 | 31.40 | 22.00 | 4.60 | 58.00 |
| 1-4 | (Part old 4 in Dist. 1) | $1,750,827 valuation. | | | SD 2 Bonds,<br>SD 1 Special Levy | 58.00 |

## Table 8 (Continued)

## CARBON COUNTY, WYOMING TAX LEVIES FOR THE YEAR 1972; STATE AND COUNTY TAXES ON VALUATION OF $74,984,055. (SCHOOL-RELATED TAXES ASTERISKED "*")

### C. Taxes in School District (incorporated area)

| Cities and Towns | Valuation | State and County | Special School Taxes | School Dist. Bonds | Municipal Levy | Total |
|---|---|---|---|---|---|---|
| Baggs | $ 124,813 | 31.40 | 22.00 | 10.00 | 8.00 | 71.40 |
| Dixon | 50,123 | 31.40 | 22.00 | 10.00 | 8.00 | 71.40 |
| Rawlins | 9,798,966 | 31.40 | 22.00 | 4.00 | 8.60 | 66.00 |
| Sinclair | 3,748,023 | 31.40 | 22.00 | 4.00 | 6.00 | 63.40 |
| Elk Mountain | 123,230 | 31.40 | 22.00 | 4.60 | 12.20 | 70.20 |
| Elmo | 34,179 | 31.40 | 22.00 | 4.60 | .00 | 58.00 |
| Hanna | 428,888 | 31.40 | 22.00 | 4.60 | 20.00 | 78.00 |
| Medicine Bow | 375,018 | 31.40 | 22.00 | 4.60 | 18.80 | 76.80 |
| Saratoga | 1,651,552 | 31.40 | 22.00 | 4.60 | 7.20 | 65.20 |
| Encampment | 365,280 | 31.40 | 22.00 | 4.60 | 11.50 | 69.50 |
| Riverside | 46,726 | 31.40 | 22.00 | 4.60 | 4.00 | 62.00 |

### D. Special Taxes

| Description | Mills |
|---|---|
| Savery-Little Snake River Water Conservancy District | .50 |
| Reader Cemetery District | 1.60 |
| Baggs Cemetery District | 2.00 |
| Livestock Inspection Tax (All Livestock) | 6.00 |
| Predatory Animal Tax (Sheep only) | 50.00 |

## Federal Aid

Monies for school finances in Wyoming come from a number of sources. State and local resources have been discussed in the previous section, under the Foundation Program plan. A brief indication of the type and level of federal government funding in Carbon County schools is offered in this section. Since some federal government programs are competitive in nature, they may be conceived to have influenced the successful competition by School District No. 2 in the Experimental Schools project.

Social reaction to federal aid generally in Wyoming is important to understand and appreciate. Before proceeding with a specific discussion of federal aid to education in Carbon County, some comments on reactions to federal aid in general are in order. Wyoming has not always been keenly receptive to federal assistance, least of all to federal aid for education. It has a long history of being suspicious of the federal government; some of these incidents have been documented by Larson (1965) and Gressley (1963). Since earliest times, Wyoming has been a colonial state in the sense that many of its interests have been subordinated to eastern industry, big business, and government. In economic terms, this view is corroborated by the fact that Wyoming produces many raw materials for export, and among the Western states Wyoming has, perhaps, the largest percentage of people employed in export industries (Larson, 1965, pp. 567-568; see also Arington, 1963). The bulk of the exports are in minerals and energy resources, such as oil, natural gas, uranium, iron ore, coal, and trona. Livestock exports are also important.

During the 1950s and 1960s, Wyoming enjoyed a favorable balance of payments in terms of expenditures to and from the federal government. Larson (1965, pp. 569-570) cites several studies which demonstrate Wyoming's favorable position. Taking an index of 100 as the U.S. average, Wyoming's index in 1952 was 116; in 1958 it was 118; and for the period of 1959-1961, it was 128. Economists have argued that it is wise policy for the federal government to expend more in underdeveloped regions of the country than they take from them (Garnsey, 1950 in Larson 1965, pp. 568, 570). Many Wyoming citizens, however, were unaware that the federal government spent more in the state than it took out, and they did not want to admit that their state was "under-developed" or that it needed or actively relied on assistance from Washington. A significant number of citizens felt then (and now) that the federal government should be less involved in the affairs of Wyoming.

Federal aid to education became a volatile political issue in Wyoming during the late 1950s. Much of the federal aid was in grants not requiring matching funds, but those which did require matching were singled out for action in the state legislature. "In a burst of resentment against the long-term trend toward greater centralization of power in Washington, the 1961 legislature passed a law making Wyoming the only state unable to accept National Defense Education Act matching funds for public schools" (Larson, 1965, p. 570). The resentment did not last long, and, by 1965, opponents to federal matching funds were outnumbered. The 1965 legislature repealed the previous law and allowed federal matching funds for education. Since 1965, there has been a strong federal aid to education program handled through the State Department of Education in Cheyenne.

Carbon County school districts, before and after unification, have taken advantage of four federal government Title programs in particular: Title I, ESEA (Elementary and Secondary Education Act); Title II, ESEA; Title III, NDEA (National Defense Education Act); and Title III, ESEA.[78], [79]

Title I, Elementary and Secondary Education Act (ESEA), is designed to provide financial assistance to local educational agencies serving areas with concentrations of children from low income families to expand and improve their educational programs, and to meet the special educational needs of educationally and economically deprived children. The program is divided into two parts: (a) a non-competitive entitlement program of a fixed amount based on the number of economically deprived children, and (b) a competitive special incentives program. Programs in remedial reading, health, cultural growth, etc., are funded under this Title program.

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[78] For much of the information in this section--facts, figures, and descriptive information about the Title programs--I am indebted to Mr. Mel Gillispie, Director of Federal Projects, Wyoming State Department of Education, and to his staff. I am equally indebted to Mr. John Tynon, Superintendent, Carbon County School District No. 2, for his help and information.

[79] Districts in Carbon County have also received monies under Public Law 874, which allocates revenues in lieu of local taxes, on the basis of the number of children whose parents are employed on federal lands in the school districts. In Carbon County, a great deal of this revenue comes from coal mining operations holding leases on federal government lands.

Carbon County districts have participated under Part (a), the non-competitive regular program. The participation of four Carbon County districts beginning in 1969 is described in Table 9. Rawlins and Saratoga received the most aid in this program. Hanna and Encampment schools were also recipients of small entitlements; Medicine Bow and McFadden were not.

The Title II, ESEA program was designed to strengthen and improve educational quality and opportunity in the nation's elementary and secondary schools through the provision of instructional materials. The program provides direct financial assistance for the acquisition of supplementary school library resources and other instructional materials for the use of children and teachers in public and private elementary and secondary schools. It is designed to give children and teachers greater access to a larger quantity of instructional materials of high quality.

The program is divided into two parts: (a) is non-competitive, involving 80% of the total grant available and is allocated on per capita and relative need bases. Successful demonstration of need in part (a) leads participants to part (b), a competitive grant, designed to stimulate needed growth in a particular subject area through library resources. The concept of educational growth and resources for stimulation is relatively new in the field of federal aid.

The level of funding for Carbon County schools since 1966 in the Title II, ESEA program is given in Table 10. Rawlins, District No. 3, has consistently received the largest allocations in the county, with Platte Valley District No. 9 second. Hanna-Elk Mountain District No. 4, Encampment District No.18, and Medicine Bow-Shirley Basin District No. 6, as well as Baggs District No. 1, also received Title II funds in this program. Program allocations designated as "Carbon County Rural Schools" on Table 10 were administered through the county superintendent's office.

The Title III, National Defense Education Act (NDEA) program authorizes, on a matching fund basis, the acquisition of laboratory and other special equipment and materials including minor remodeling to improve

Table 9

## TITLE I, ESEA ASSISTANCE TO CARBON COUNTY SCHOOLS, 1969-1972

| School District | Program Description | Fiscal Year | Allocation |
|---|---|---|---|
| No. 3, Rawlins | Remedial Reading Laboratory | 1969 | $30,440.00 |
| | | 1970 | 31,235.00 |
| | Remedial Reading Laboratory, Introduction to the World of Work | 1971 | 32,190.00 |
| | | 1972 | 33,143.00 |
| No. 4, Hanna-Elk Mountain | Health & Elementary Guidance | 1969 | 7,294.00 |
| | | 1970 | 7,445.00 |
| | | 1971 | 7,919.00 |
| No. 9, Platte Valley | Remedial & Individual Instruction | 1969 | 12,208.00 |
| | | 1970 | 12,300.00 |
| | | 1971 | 13,255.00 |
| | | 1972 | 12,991.00 |
| No. 18, Encampment | Library Program, Summer Remedial Reading, Summer Kindergarten | 1969 | 6,976.00 |
| | | 1970 | 7,866.00 |
| | | 1971 | 7,402.00 |

Table 10

## TITLE II, ESEA ASSISTANCE TO CARBON COUNTY SCHOOLS, 1966-1971

| School District | Fiscal Year | Regular Allocation | Special Project |
|---|---|---|---|
| No. 1, Baggs | 1972 | $ 449.00 | $ 5,320.00 |
| No. 3, Rawlins | 1966 | 9,210.02 | |
| | 1967 | 4,709.03 | |
| | 1968 | 3,987.00 | |
| | 1969 | 2,391.00 | |
| | 1970 | 1,657.50 | |
| | 1971 | 2,973.00 | |
| No. 4, Hanna-Elk Mountain | 1968 | 404.00 | |
| No. 9, Platte Valley | 1967 | 300.00 | |
| | 1968 | 518.00 | |
| | 1971 | 841.00 | |
| | 1972 | 579.00 | |
| No. 6, Medicine Bow-Shirley Basin | 1967 | 300.00 | |
| | 1971 | 318.00 | |
| No. 18, Encampment | 1970 | 300.00 | |
| Carbon County Rural Schools | 1966 | 74.09 | |
| | 1967 | 300.00 | |

elementary and secondary education facilities in critical subject areas. Like Title II, ESEA, previously described, the NDEA program is divided into two parts on an 80% non-competitive/20% competitive follow-up basis. Most schools in the unified district have been the recipients of Title III monies, in varying degrees.

The Title III, Elementary and Secondary Education Act (ESEA) program called PACS (Projects to Advance Creativity in Education), is designed to encourage school districts to develop imaginative solutions to educational problems, to more effectively utilize research findings, and to create, design, and make intelligent use of supplementary centers and services. The program's primary objectives are to translate the latest knowledge about teaching and learning into widespread educational practice and to create an awareness of new programs and services of high quality that can be incorporated into school programs.

This program is totally competitive, for purposes of developing innovative and exemplary ideas in education. It involves both major and "mini" grants to schools and to teachers. Carbon County schools have been jointly allocated several competitive, innovative grants through this program (see Table 11). All local county districts have been involved in

Table 11

TITLE III, ESEA ASSISTANCE TO CARBON COUNTY SCHOOLS, 1966-1972

| School District | Project Description | Fiscal Year | Allocation |
|---|---|---|---|
| No. 3, Rawlins | Coordinated Instructional Center | 1966 | $129,180.00 |
| | System Approach to Master Planning | 1971 | 20,000.00 |
| | Pilot Program for Implementation of Accountability System | 1972 | 31,778.00 |
| No. 9, Platte Valley | Wyoming Visual Literacy Curriculum Center | 1971 | 109,796.00 |

the development of the Carbon County Instructional Materials Center (which at the time of unification was moved from Sinclair, in District No. 1, to a permanent location in Saratoga, District No. 2). A part of the Materials Center program has been a Visual Literacy program and a program called VERB (Victor Electronic Remote Blackboard) for grades 5, 6, and high school. The VERB program provided two-way voice communication and one-way electronic writing capabilities between the outlying participant schools and the master station. Live and canned programs in Spanish, mathematics, and in-service training were provided.

The school districts of the county have, in recent years, participated in two other entitlement programs. For two years, 1969 and 1970, the Wyoming Legislature provided a 10% flow-through of Title V funds to finance special projects at the local school level. Normally, it should be noted, Title V, ESEA funds are designed to provide for programs directed toward strengthening state departments of education. Title V funds for the Carbon County schools are given in Table 12. A number of grants have also been received in the county under the Vocational Education Act of 1963 (amended in 1968) between the years 1968 and 1972. They are listed in Table 13.

Table 12

TITLE V, ESEA SPECIAL PROJECTS GRANTS TO CARBON COUNTY SCHOOLS, 1969-1970

| School | Program Description | Fiscal Year | Allocation |
|---|---|---|---|
| Grade 7 at Wamsutter and Bairoil (in Sweetwater County), and at Saratoga and Rawlins (Carbon County) | Intermediate Science Curriculum Study | 1969 | $ 623.00 combined |
| Platte Valley School District No. 9 | Curriculum Development through Application of Systems Analysis to Education | 1970 | $3,184.20 |

## Table 13

### VOCATIONAL EDUCATION ACT OF 1963 (AMENDED IN 1968) ASSISTANCE TO CARBON COUNTY SCHOOLS, 1968-1972

| School District | Fiscal Year | Allocation |
|---|---|---|
| No. 1 Baggs | 1968 | $ 1,646.43 |
| | 1969 | 1,537.00 |
| | 1972 | 2,399.00 |
| No. 3 Rawlins | 1968 | 2,885.00 |
| | 1969 | 2,271.38 |
| | 1970 | 25,750.00 |
| | 1971 | 65,185.00 |
| | 1972 | 32,356.00 |
| No. 4 Hanna-Elk Mountain | 1968 | 248.00 |
| | 1969 | 287.00 |
| No. 6 Medicine Bow-Shirley Basin | 1968 | 193.00 |
| | 1969 | 236.00 |
| | 1970 | 345.00 |
| | 1972 | 445.00 |
| No. 9 Platte Valley | 1968 | 1,663.00 |
| | 1969 | 1,889.00 |
| | 1970 | 2,130.00 |
| | 1971 | 2,416.00 |
| | 1972 | 3,550.00 |
| No. 18 Encampment | 1968 | 611.00 |
| | 1969 | 786.00 |
| | 1970 | 375.00 |
| | 1972 | 944.00 |

Finally, one more source of federal funding other than the entitlement program has existed for Carbon County schools since the 1950s. These are Public Law 874 funds, compensation in lieu of land taxes. In this district, where the bulk of the land is owned by the federal government (administered by the Bureau of Land Management and the U.S. Forest Service), this compensation is important. PL874 funds are computed on the basis of the number of children enrolled in school whose parents work and/or live on federal land within the district. Most often in the U.S., these funds apply to military and civilian employees of the federal government, but in Carbon County's case, the majority are employees of private companies which hold special use leases with the government. They include miners at Shirley Basin and Hanna, and private timber workers, as well as the employees of the U.S. Forest Service, the Fish and Wildlife Service, and the Department of Agriculture. The vast majority of these people work on but live off of the federal lands. During 1972-73, the first year of unification of School District No. 2, fully 1/3 of the schools' enrollment was enumerated and compensated for under PL874. Compensation was approximately $900 per pupil, providing funds to the district equivalent to about 8% of the total operating budget.

## Staffing

Staffing procedures in the unified school district have tended to follow the previously established procedures of the five independent districts of eastern Carbon County. The general practice has been for superintendents, with the aid of their subordinate administrative staff, to notify the Board of Trustees of staff resignations and new positions, and to recommend replacement each spring. A majority of the teachers in the unified district have degrees or have taken a significant portion of their training from the University of Wyoming, at Laramie. Administrators, however, are hesitant to hire most or all of their instructional personnel from Wyoming; rather, they seek a broad range of educational training and experience. Many teaching personnel are contacted and recruited at the University of Wyoming during a period of several days each spring set aside especially for that purpose. Others are brought into the district from schools of education in Colorado, Nebraska, and the Dakotas, and from more distant states. A few staff positions are regularly filled after initial contacts are made through the State Department of Education placement offices in Cheyenne. Often, informal recommendations from other administrators and university or state department personnel are sufficient to attract school district administrators to a particular recruit. The recruitment of local hometown persons who have completed their college degrees in education is not actively encouraged; their employment was much more common in past years. Supplementary credits in education, earned toward fulfillment of recertification requirements or advanced degrees, are often earned in summer school at the University of Wyoming, or at other nearby teachers' colleges, such as that at Northern Colorado University at Greeley.

For the 1972-73 school year, the first full year of unification, the school district employed 101 certified teachers (an increase of five over the year before), and eight certified administrators. Additionally, there were 60 auxiliary personnel (custodians, cafeteria personnel, secretaries, bus drivers, and teacher aides). Teacher salaries averaged, at the time of unification, $8,197.

## Students

The pupil population of the unified school district is predominantly white. In 1972, there were one or two black families living in the Hanna area, as well as several Mexican-American and one Japanese family. There are several American Indian, or mixed Indian-white, families scattered throughout the unified district. The Mexican Americans residing primarily in Hanna and Medicine Bow are the largest minority group, comprising approximately 5% of each of these two communities, but less than 3% of the entire district population. In Hanna and Medicine Bow schools, Mexican-Americans comprised no more than 8-10% of the student population.

The Mexican-American students have had some slight educational problems due primarily to cultural and language differences. The problems have been alleviated to some degree by the use of ESEA Title I funds designed for the education of low income families at Hanna, and at Medicine Bow by local district supported programs. The ethnic makeup of the entire unified district, based on 1970 census figures, was

| | |
|---|---|
| Anglo-Saxon | 60% |
| Scandinavian | 18% |
| Slavic | 8% |
| Southern European | 11% |
| All other | 3% |

In September, 1972, beginning the first full year of unification, the school district student population (K-12) was 1,424 students, attending eight elementary schools and four junior/senior high schools. These schools and their pupil populations are listed in Table 14.

Table 14

ENROLLMENT IN SCHOOLS OF UNIFIED DISTRICT NO. 2, SEPTEMBER, 1972

| School Name | Grades Taught | Enrollment |
|---|---|---|
| Beer Mug Elementary | 1 | 1 |
| Encampment Elementary | K-6 | 78 |
| Elk Mountain Elementary | K-6 | 89 |
| Hanna Elementary | 1-6 | 132 |
| McFadden Elementary | K-8 | 16 |
| Medicine Bow Elementary | K-6 | 91 |
| Saratoga Elementary | K-6 | 276 |
| Shirley Basin Elementary | K-6 | 105 |
| Encampment Jr./Sr. High | 7-12 | 91 |
| Hanna-Elk Mtn./Jr. Sr. High | 7-12 | 153 |
| Medicine Bow-Shirley Basin | 7-12 | 151 |
| Platte Valley High School | 7-12 | 241 |
| Total | | 1,424 |

Approximately 40% of the students were transported to and from school by bus; of these, about 25% traveled from a long distance away (i.e., were not picked up in or very near to town).

In 1972, the four high schools graduated 61 students. That year 27 (or approximately 44%) of those graduates enrolled in four-year colleges or universities (25 of them at the University of Wyoming). Eight students

(13%) enrolled in community or junior colleges within the state, and four entered trade schools. Of the remaining 22 graduates (36%), two boys entered the military service, six girls married and became housewives, three girls were employed in full-time clerical work, and 13 boys (21% of the total) were employed full-time by either a mining company, the railroad, or a ranch. One boy was unemployed.

The average dropout rate in grades 7-12, as compiled by the State Department of Education for the district in 1971-72, was a low 3.3%. Student dropouts fall into two categories; one category consists of a number of girls who withdraw from school to marry and have families, and the other category consists of a group of students, boys and girls, who need special educational or occupational programs which are not available within the district.

## Curriculum

The curriculum of the five school districts prior to unification was generally academic and focused on the college bound. Additionally, some specialization in commercial and vocational instruction, particularly vocational agriculture, was offered. Generally, the schools were organized around traditional concepts of education and fundamental subjects such as language arts, mathematics, science, and social studies. Physical education and organized conference athletics (basketball, football, and wrestling, in particular) were also heavily emphasized and accounted for a large portion of each high school's budget.

Within the traditional framework of instruction, teachers were allowed a certain amount of flexibility. "New mathematics" was introduced in some schools, and an innovative program in visual literacy, funded county-wide, was also introduced. Saratoga and Hanna, primarily, took most advantage of new curriculum ideas, while other schools such as Medicine Bow and Encampment remained fairly traditional and conservative in focus. With unification, innovative educational opportunities were equalized. In some of the larger schools, such as Saratoga and Hanna, programs were underway which emphasized individualized instruction based upon continuous pupil progress. In essence, this design is not unlike that of the early rural schools where a small teacher/pupil ratio existed and where several grade levels were combined in one spatial-temporal unit. In the remaining small schools of the district, such as McFadden and Beer Mug, of course, this individualized instruction concept has always been unofficially the case.

Each of the schools had library facilities, which varied considerably in size and quality. Saratoga's elementary and high school libraries were undoubtedly the best of all. In terms of a pupil/book ratio, however, McFadden was ahead of all the others, as the McFadden elementary school had inherited a large high school library.

In 1970, by best estimates, there were nearly 15,000 books in the libraries of the five independent districts:

Table 15

VOLUMES IN SCHOOL LIBRARIES, 1970

| School | Elementary | High School |
|---|---|---|
| Saratoga (Platte Valley) | 2,633 | 2,568 |
| Hanna-Elk Mountain | 1,000 | 4,400 |
| Medicine Bow-Shirley Basin | 500 | 1,200 |
| McFadden | 2,273 | ----- |
| Encampment | --no records-- | --no records-- |
| Totals | 6,406 | 8,168 |
| Grand Total: 14,574 | | |

Records of book circulation are less accurate and less available for each school. The following table indicates circulation estimates in three of the five school districts. (Circulation in this case means number of books on loan, overnight or longer, as well as the number on reserve.)

Table 16

CIRCULATION OF SCHOOL LIBRARY BOOKS, 1970

| | |
|---|---|
| Saratoga (Platte Valley) Schools (Elementary and High School) | 15,227 |
| Hanna-Elk Mountain Schools | 800 |
| Medicine Bow-Shirley Basin | --no records-- |
| Encampment | --no records-- |
| McFadden | 1,119 |
| Total Circulation (known) | 17,146 |

Altogether, between the five districts, 2.5 librarians were employed in 1970.

## The Community and the School System

The intimate historical closeness between community (town and rural) residents and their schools in Carbon County has already been discussed (see The Middle Years: Education and Social Life, pp. 990-999. Schools in Carbon County, as in similar rural areas of the state and nation, were unifying agents in the sense that neighborliness and neighborhoods developed and were fostered by schools, school children, and community-school functions.

In the two decades prior to school district unification and application for the Experimental Small Schools Project in 1972, some of this close interaction in Carbon County had broken down due to the effects of improved transportation and communications (especially television) on family and neighborhood social networks  It would be incorrect to say, however, that television had so serious an impact as to create an entirely new, or even a severely curtailed, community-school relationship. Schools continued to be focal points of school and community athletic and cultural events, and many social and religious gatherings. In the remote rural ranching areas, television was difficult, if not impossible, to receive, and the schools continued to be focal points of social interaction and citizen interest and responsibility.

Because property taxes were, and continue to be, one of the primary sources of school revenue, ranchers, as property owners, have always taken considerable interest in school operations and spending. Miners, on the other hand, have become less involved. This dichotomous situation has been discussed earlier and was recognized by Knudson (1937) to stem basically from the difference between landowners and renters, transients and permanent residents.

Since the beginnings of a formal educational system in Carbon County, ranchers as a group have been the most active in school board politics. School boards in the former districts, with few exceptions (notably McFadden) have always been dominated by ranchers. Even at the inception of the unified School District No. 2, in 1972, six of the nine elected trustees were ranchers, two were businessmen in ranch service towns, and one had family ties to both. Nobody involved in mining or energy resource development was elected. Yet, the majority of residents in the northern sector of the school district, at Hanna, Medicine Bow, Shirley Basin, and McFadden were directly employed or otherwise dependent on the mining-energy development industries.

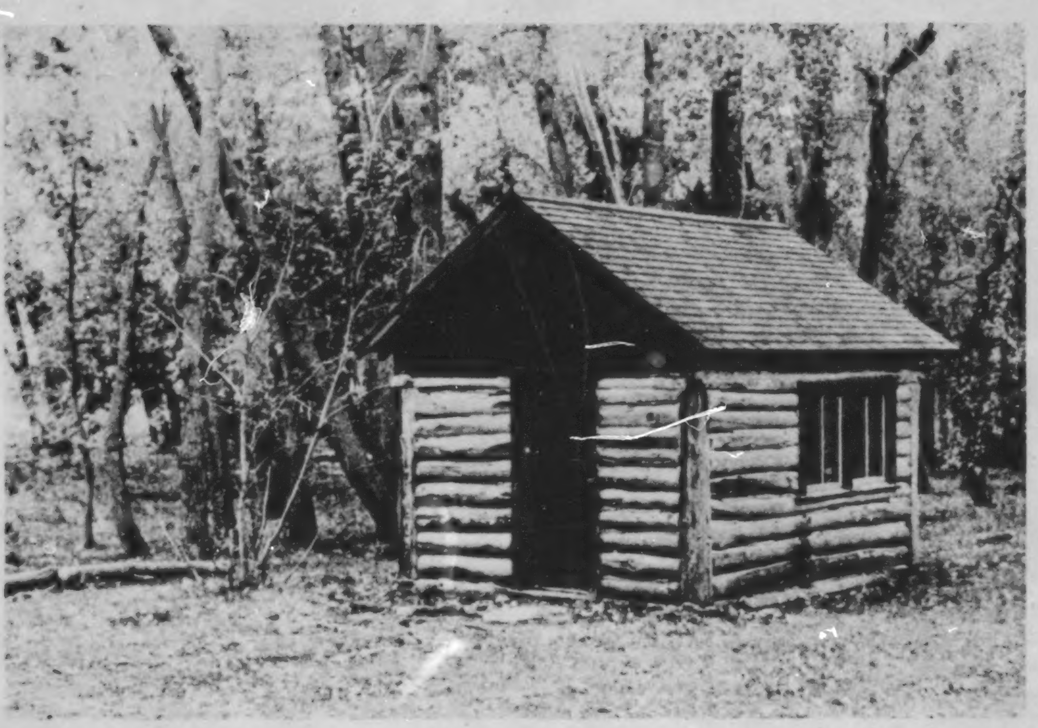

Fig.34. Beer Mug School (unused today) at the Ellis ranch, Difficulty, Wyoming.

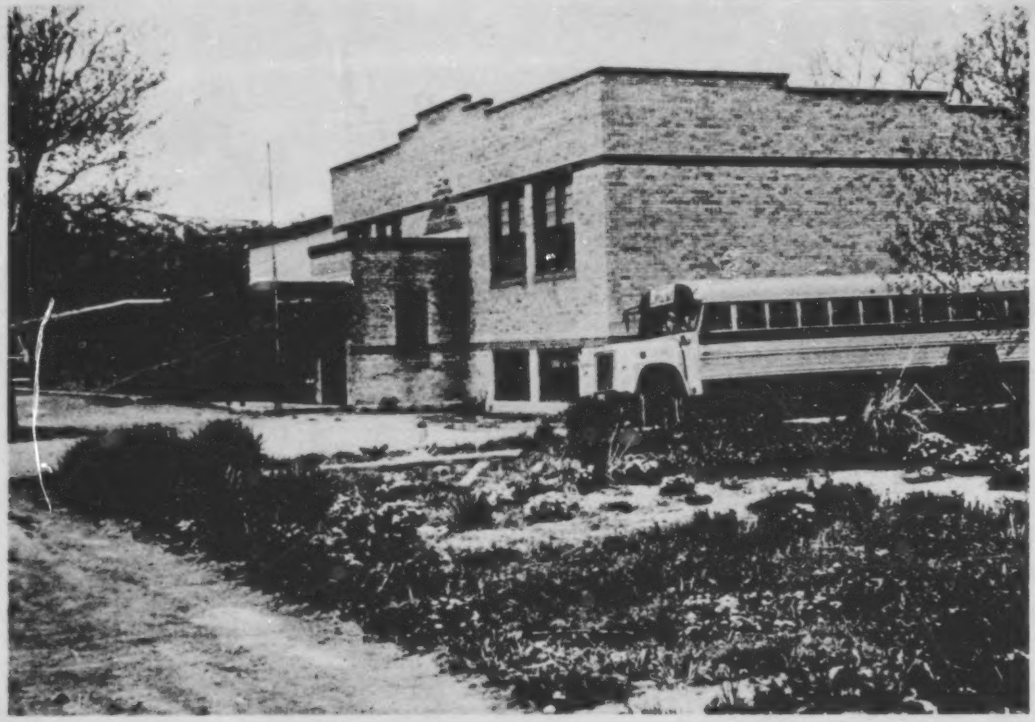

Fig.35. Elk Mountain School, 1970s.

In general, other residents of the former school districts have been content to let the elected trustees oversee school operations almost entirely. Periodic issues would arise which would involve concerned citizens not on the board, and at these and other times Parent-Teacher Organizations (PTOs) would flourish. For the most part, however, the local trustees were strong enough as a group to maintain control and to remedy problem situations quickly.

School reorganization in 1969-72 involved some important changes in community-school relations. Prior to the 1969 law, common school districts were required by law to hold annual public meetings for the purposes of reporting on the budget and school activities, for designating the official depository (bank) and newspaper(s) for the district, and for electing trustees. Following the 1969 law, common districts were redesignated first class districts, and the annual district meeting was eliminated and replaced by a special budget hearing and special elections. Still, the public does not exercise the sort of unpredictable clout that is found in other states where annual school district budgets are defeated with alarming frequency. As long as the school district is operated by honest men and the budget remains within the limits of voter-sanctioned tax levies, there is little or no opposition.

Most citizens maintain primary contact with the schools through their children, and secondarily through school bond and trustee elections and taxation. Local control of schools, however, was and continues to be a most cherished value. Expressions of this value were frequently heard during the unification troubles. They have varied considerably in relation to the actual operation of local individual schools. Several of the smaller schools prior to unification were notably conservative in outlook, while others took on a more cosmopolitan and "progressive" outlook. The three smaller districts, McFadden, Medicine Bow, and Encampment, sought the least in state or federal monies or special education programs designed to expand or update curriculum or school services. McFadden had the advantage of considerable wealth, hence it needed and qualified for very little outside help. School leaders of Medicine Bow-Shirley Basin, a district fairly well off by county and state standards, and Encampment, a relatively poor district (see Table 3) were not generally willing to trade local control for state or federal programs. Saratoga and Hanna-Elk Mountain, although neither very poor nor very wealthy districts, did attract a number of outside grants and special programs in the late 1960s and early 1970s. In some instances, the difference between school districts in their use or non-use of outside aid can be attributed, to a degree, to personality characteristics of particular school administrators and trustees. Nonetheless, a recognizable conservative/progressive dichotomy did appear to exist between the former districts. With unification, the two most progressive former superintendents were given key administrative positions as superintendent and assistant superintendent of the new district. They had the strong support of trustees and the community people at large as they sought the best in outside programs for the benefit of all children throughout the consolidated system. Unification thus set the stage for the Experimental Schools program.

## Catalyst for Unity: The Experimental Schools Project

During the week of March 13, 1972, Superintendent John Tynon received a circular from the U.S. Office of Education announcing competition for an Experimental Small Schools Project (ESSP) for comprehensive change in rural schools. At the following regular meeting of the Board of Trustees on March 20th, just two months to the day since official unification, Mr. Tynon requested board approval to make application. By a vote of seven in favor, one opposed (one absent), the trustees gave him formal permission to proceed with application by the April deadline. On April 8, an initial letter of intent was drafted and sent to Washington. On June 29, a telegram arrived from Dr. Robert Binswanger, Director of the Experimental Schools Project, announcing that Carbon County School District No. 2 was "designated to receive a one-year planning grant of [$]46,500... for the purpose of further developing the ideas described in your original letter of interest with the strong possibility, after submission of a final plan, February 1973, of operational funding as an Experimental School site."

What motivated the new district's administration and school board to pursue the ESSP idea with such enthusiasm? There is absolutely no doubt that in applying to the experimental program a primary goal was to develop new programs and new methods in education in a sincere attempt to meet the demands of a fast changing world. The new school board and new administration had a clear mandate, in effect a clean slate, on which to plan and implement a unified educational system for a diverse school population in a geographically large district.

But a second, and equally fundamental goal, was also apparent: the simple facilitation of the de facto school district unification. Given the tremendous resistance to unification within Carbon County prior to the state board's order, and the great diversity and size of the new district which has been discussed at length in this history, the "hidden agenda" of promoting unity through a district-wide, federally funded experimental program was eminently reasonable.

Most administrators and board members clearly saw the potential of the Experimental Schools program in creating district-wide, patron-school unity. The logic was simple and straightforward: If community people from throughout the new district could be brought together successfully in planning a comprehensive new program, then a major step toward overall district unification would have taken place. Many informants agree that the Experimental Schools program seemed to provide the organizational and financial binding and community involvement necessary for success in unification. One State Department of Education official indicated that the Experimental Schools program in Carbon County had been the necessary "catalyst" for bringing the component parts of the district together as nowhere else in the state. Superintendent Tynon thought the ES program provided the district with "the machinery with which a [unified educational] program could evolve." One Saratoga patron, long active in community-school relations, recently commented: "When the [ES] proposal came up ... why here was a way you could bring all these schools together under one plan and try to develop it. It was sold [to the community] on that idea...." Other community members and the Board of Trustees were of the same opinion.

As the Experimental Schools program was conceived from the start to have a potentially important role in school district unification, so was unification seen as the setting for a successful ES program. Dick Hiser, the unified school board's first chairman, considered the impacts of both the Experimental Schools program and unification to be inseparable. Both had the potential of affecting each other in very positive ways. Blaine Ronne, Administrative Principal of the Medicine Bow-Shirley Basin schools, and a former State Board of Education member, has pointed out that as part of a larger unified district, the local schools would be enabled to participate in large and special purpose educational projects. Small school districts stand only to gain by unification in terms of quality education and equal opportunity, despite the unavoidable risk of losing local control. The Experimental Schools program is a case in point. A small district may have afforded some novel programs in the past, but a small school board is at a disadvantage both financially and programmatically in comparison with a larger board. With unification, the new Board of Trustees of School District No. 2 had the opportunity to implement large, district-wide programs, of which the Experimental Schools project was one of the earliest and primary examples.[80]

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[80] The newly unified District No. 2 may have been chosen by the Experimental Schools office in Washington for a planning grant, and ultimately for full funding, in part because of its recent unification. Unification sometimes serves as a catalyst and vehicle for substantial change in local educational systems and for comprehensive expansion of opportunities. Hence, the success or failure of an ES project in Carbon County unified School District No. 2 may have been conceived as a good opportunity to provide valuable information to other rural school districts in the nation similarly having achieved recent unification and contemplating systems change.

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# Chapter XII

# Overview of the Ten Rural Communities

by

Gerald Goldman

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# CHAPTER XII. OVERVIEW OF THE TEN RURAL COMMUNITIES

## Introduction

"Men are like plants; the goodness and flavour of the fruit proceeds from the peculiar soil and exposition in which they grow. We are nothing but what we derive from the air we breathe, the climate we inhabit, the government we obey, the system we profess, and the nature of our employment."[1] These words, written by Hector St. John deCrèvecoeur as he described eighteenth century America, are as applicable today as they were 200 years ago. In an attempt to understand the effects of times past on the current environment, the analysis of the histories of the 10 communities will proceed in terms of similar dimensions to those which deCrèvecoeur proposes above.

This chapter summarizes the major points of the 10 histories. Its purpose is to identify common trends and patterns among the 10 communities. From this summary, it is apparent that the communities have certain similarities as rural American communities. On the other hand, each community is a unique entity with a clear and separate identity.

First, there is a general comparison of the 10 communities and an overview of the total chapter (which is itself an overview). Then follows a discussion of the geography, geology and ecology of the 10 communities; this in turn is followed by a section on the early settlement patterns of each community, with the focus on the first 20-30 years of settlement. The next section addresses the general community development through the 1960s. Then comes a discussion of the communities as they appear in the 1970s, and finally a description of the history of the Experimental Schools project applications.

## A Comparison of the Communities in General Terms

### Access

A principal factor in explaining the past and current social, political, economic and educational status of each community is the relative ease of access to and from the community. It is true for each of the 10 communities that new forms of transportation and/or road improvement bettered its economy and caused a population increase. But access involves more than the new superhighway leading to the population center. Access also has to do with how local areas within the community are linked to one another. Comparison of mileages to outside population centers tells little about the relative isolation of communities. One can drive 90 miles in one and a half hours from one community to the nearest city, while it can also take an hour and a half to drive 40 miles over back country roads. Thus, access involves the following factors:

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[1] Hector St. John deCrèvecoeur, Letters from an American Farmer, The New American Library, New York: 1963, p. 65.

- The community's geography and the types of natural barriers which lengthen travel time.
- The types of roads or other means of travel which connect the community with population centers.
- The amount of driving time it takes an individual to reach an important destination and not merely the point-to-point mileage.

An example of how relative access affects these communities can be seen in a comparison of two sites. Hancock County has a thriving economy, a rising population and an aggressive program for school improvement. It is linked to Louisville by a major, though overcrowded highway. Some families are moving into the area for its rural qualities even though the wage earners commute to work outside of the community. Union 58, on the other hand, is divided internally by mountain ranges. It is cut off from the population centers to its south by an incomplete interstate system. Potential residents cannot easily commute in or out. Industries located there find shipping a problem. It is losing population.

No value judgments are implied by these examples; they are merely used to illustrate the alterations which change in access can bring to a community. The very qualities which people find attractive about both Hancock County and Union 58 may disappear from Hancock County now that easy access to that community brings with it urbanization and a loss of the rural nature of the community.

Whereas out-migration seems to be a recognized trend in much of rural America, five of the 10 communities have experienced in-migration in the 1970s. Of the remaining five, only two report recent declining populations. The major reasons for the in-migration are:

- Better access--enabling people to move to the communities and commute to jobs elsewhere.
- Ability of the community to attract new industry based upon available natural resources, better access, a ready labor supply, and, in some cases, tax concessions made to the industry at the time of entry.

In most cases, the people moving into the community did not work at the traditional jobs which it offered throughout its history; i.e., those jobs associated with the natural environment: mining, logging, ranching, farming.

Economics

Among the 10 communities, the range of families below the poverty level extends from 35% to 8%. The mean percentage of families below the poverty level, taking the average of these percentages for all 10 communities, is 13.8%. Only three of the 10 communities have a poverty index over 17%--the nationwide rural poverty level.

In most of the communities, the natural resources of the area generally admitted only one use and when these resources were depleted, the communities suffered economically. Those communities which had fewer hard times had some alternative industries which wage earners could turn to. This diversification of industry resulted either from a conscious attempt on the part of residents or was a fortuitous circumstance based on such unplanned events as the discovery of another natural resource or the location of a new government installation in the community. In communities which did not diversify, like Union 58 or Perry County, either a new use was found for a natural resource or a natural resource was replenished and re-used several generations later. Thus, forests which no longer had virgin timber for lumber are now used for paper manufacturing in Union 58, while Perry County was reforested in the 1930s and now supports a number of wood products industries.

In the mid 1970s, tourism is being explored by seven of the communities as an alternative industry. The efforts range from one community's becoming a site for vacation homes (with a resulting rise in land values and opportunities for construction work) to another community's identifying itself as a potential tourist attraction and actively planning for this eventuality.

## Social, Cultural and Political Patterns

More than half of the histories report that residents of these communities are extremely satisfied with the quality of their life. Several histories report an atmosphere of independence coupled with neighborliness and cooperation on the part of the residents, both currently and in the past. This is to say that an individual in many of these communities takes pride in being able to live his/her own life on his/her own terms and knows, as well, that when help is needed, it will be given freely. In fact, when an abundance of wildlife and plantlife and a relatively temperate climate are combined with a social atmosphere of neighborliness as in some of the communities, survival in terms of the basics of life is not difficult. Naturally, some of the communities lack one or more of the above characteristics, and basic survival is more difficult.

Politically, most communities tend to be conservative; most vote Republican. However, there is evidence in several communities that families of original or old-time settlers may be relinquishing their hold on the local government. In some instances, more liberal elements of the community have won recent elections.

As is the case in both rural and urban America, there is a trend toward employment of professionals to handle increasingly complex community issues. Thus town or county managers are being hired in several communities to assist local elected government officials in managing their affairs.

## Education

One salient feature of all school-administering bodies in the 10 communities is that, where they are elected, the offices are often held by either long-time community residents or descendants of the first settlers. These residents naturally have most invested in maintaining community life as it has always been. In some communities it may be totally unrealistic to expect the school to assume the role of a change agent if those who are and will continue to be in charge of the school system are not inclined to promote change.

At least five communities report that teachers' salaries are below their state's average. Because urban areas tend to pay higher salaries than do rural areas, all 10 communities are probably at the lower end of the wage scale in their state. Below state average teaching salaries may be related to the fact that several communities report difficulty in recruiting and retaining teachers.

In the 10 communities, an average of 40-50% of graduating seniors go on to college. The communities tend to stress college preparatory courses at the expense of career and vocational education.

Several communities reported that, in general, of the students who do go to college, relatively few complete the course of study. Where young people leave the community, be it for college, employment, or other reasons, many return to it at a later time. It is reasonable to expect that if their parents report great satisfaction with the lifestyle in the community, then many of their children will feel the same way. Thus the migration of youth out of the community may be a temporary phenomenon for the youth involved (especially for those communities which are now gaining population). It may be viewed as a form of continued education, the gaining of wider experience, before the young people return to the community.

Although consolidation in general benefitted the school districts, one major negative result has been the decreased sense of local identification and control of the schools. In many instances, the desire for local control of the schools was not a desire to control the quality of education as much as it was the concept that the local school played an important role in defining the local area. To lose control of the school was to lose this sense of local definition. One major factor in providing this sense of local identity before and after consolidation has been school athletics, most particularly basketball. Many histories mention school basketball as a prime means of providing communities with local identity. There is an implication here that localities tend to play out hostilities and conflicts with one another, when such arise, through school sports.

## The Experimental Schools Grant Application

The description of the ES applications is discussed in detail below. Several prominent issues highlight this process.

In all cases except one, the school superintendent was the prime motivating force behind the application. Citizen participation varied from extremely active involvement to very little. Where there was little involvement, the superintendent wished to keep the proposal "under wraps" and not raise false hopes about the grant possibility prior to the actual award of the grant. There was only one recorded instance of student involvement in the pre-grant planning process.

## Geology, Geography and Ecology

### Geology

Five communities were once extremely rich in a variety of natural minerals. That diversity exists today, although not with the richness of former times. Craig, Willcox, Carbon County, Hancock County, Lead-Deadwood, and South Umpqua have a plethora of minerals ranging from gold, silver and uranium to nickel (in the area adjacent to South Umpqua), coal, oil, copper and iron. Only a few communities currently depend significantly on mining their natural minerals. The major examples of this are Lead-Deadwood, where a fully operational gold mine affects virtually all aspects of life in that community, and Carbon County, where the extraction of coal, uranium and oil are all important industries.

Many communities over farmed or over logged their land in the past. In Hancock County, for instance, furrows were plowed vertically rather than horizontally through the hilly, although agriculturally rich, farmlands. As a result, valuable topsoil was washed away.

One community, Craig, has minimal history or current involvement with the land as a means of supporting human life. In Craig, it is the sea which has been farmed, mainly for its rich salmon runs. In all other nine communities, the topsoil has been used for three major purposes: farming, ranching and wood products.

The midwestern and southern communities in the study have a historical tradition of land being farmed and logged until it had no further use. The farmer or logger would then seek new land either in that area or further west. In one community, Perry County, land which was used for logging until its yield declined was replanted, and is now being used again in wood product industries.

Although substantial farming and ranching exist today in nine communities, none is involved in these pursuits in the massive highly competitive fashion of "agribusiness." (Willcox and Carbon County with large ranch spreads come closest.) This is due to the fact that these communities are not endowed with great expanses of rich farmland. For example, in Union 58, there is extremely fertile land only in the Connecticut River Valley, which comprises one of its boundaries. The remainder of the land is rocky, hilly and heavily forested. Historically, it was difficult to clear.

Ranching is important in a few communities. Douglas County, where the South Umpqua school district is located, is the largest sheep producer in Oregon. Its pastures, though small, are rich, while in Carbon County and Willcox, there are vast grazing ranges for both cattle and sheep.

Water as a natural resource figures prominently in the histories of all the communities. In at least two instances (Carbon and Willcox) where the environment is arid or semi-arid, water has been a marketable commodity. Irrigation is practiced in both areas. All of the other communities have varying degrees of water resources.

## Geography

The 10 communities have a wide range of geographic characteristics. Within their boundaries are 14,000 foot mountains as well as flat, arid and semi-arid areas. There are communities with lush bottom land constantly enriched by rivers and streams, and there are communities in which food is only grown through the use of irrigation systems. In one community (Craig) there is no cultivation of the land. There are communities within which localities are isolated because of bodies of water or mountain ranges, and there are communities in which internal communication is easy because of highway systems.

Four communities (Craig, Union 58, Quilcene, and South Umpqua) contain significant geographic barriers (mountains or bodies of water) which contribute to their isolation. Craig is situated on an island, and Quilcene is located on a peninsula. In terms of time needed to reach more heavily populated areas, or indeed any other areas whatsoever, these are the two most isolated communities.

The vast distances between inhabited places in Carbon County have had the same effect. Historically, these barriers have worked against effective school district consolidation. Even today, local identification is with local place of residence and local school, rather than with the consolidated district. Local identification contributes to opposition of transporting students across these geographic barriers in times of bad weather.

As has been noted, distances from points within the community or to points outside the community are not nearly so important as the length of time it takes an individual to drive from one point to another. At least eight of the communities are no more than 100 miles from a medium-sized city. Though it takes a resident of South Umpqua two hours to reach Eugene, Oregon, some 85 miles distant, it takes just as long to reach the Pacific Ocean, only 40 miles to the west. A Hancock County resident can drive the 90 miles to Louisville in one and a half hours. Put in those terms, some communities are much more isolated than others. They represent the range of isolation much the same as we might find in all rural communities throughout the U.S. From this perspective, Craig and Quilcene are the most isolated of the 10 communities. Union 58, Perry County and Carbon County are somewhat more isolated than the remaining communities but less so than Craig or Quilcene. The remaining communities are within two hours drive of at least a medium-sized urban area.

The geography of Hancock County produced two distinct cultures. In terms of speech, dress, customs, and the like, people who farmed the hills were an identifiably different group from those who farmed the river bottoms. Although not hostile, the groups had little interaction during that period in the community's history when farming was a principal occupation in the community.

## Ecology

While in some communities natural life is abundant, in others certain animals are extinct because of large scale hunting in the past. In some communities one could subsist reasonably well on wildlife found there. South Umpqua and Quilcene, both in the Pacific Northwest, have a well balanced supply of fish and wildlife, coupled with a relatively moderate climate throughout the year.

The sites represent a cross section of climates, although none is at the extreme end of the temperature spectrum. Even Craig, Alaska is in a moderate temperature zone because of a North Pacific current. Within some communities (notably Willcox and Carbon), as a result of variation in altitude, there are several temperature zones with entirely different ecosystems.

Changes in the natural environment have resulted from over use of natural resources. In Craig, for example, over exploitation of salmon runs caused the collapse of the salmon pack in 1950, and salmon fishing has never returned on the scale found previously. Overly intense farming and logging in communities where these two occupations were significant has also resulted in population decline. In most instances, farming as a way of life never recovered on a large scale. However, reforestation projects such as those found in Quilcene and Perry County rejuvenated wood products industries.

In addition to reforestation, the ecological system in Quilcene was made more productive by the introduction of the Japanese oyster. Since then, oyster farming has been a major industry in Quilcene. The introduction of domestic sheep and European cattle in Carbon County similarly changed the ecological system there.

## Early Settlement Patterns

There are three different periods of settlement for the 10 communities:

1770-1830
Constantine, Hancock County, Union 58 and
Perry County

1830-1860
Quilcene, Willcox and South Umpqua

1860-1910
Craig, Lead-Deadwood, and Carbon County

The late settlement of Craig was due to its remoteness. The inhospitable nature of the Black Hills in South Dakota and of the western Great Plains in Wyoming explains why settlement was late in Lead-Deadwood and Carbon County. Miners were the first settlers in the Lead-Deadwood area; in Carbon County, there were no permanent settlements prior to the coming of the railroad, although there had been earlier travelers across the county--trappers, missionaries, and emigrants on the Overland Trail. It was the railroad which permitted profitable ranching and coal mining and which brought stability.

With slight variation, the early settlement patterns of the 10 communities follow the history of the westward expansion of the United States in the nineteenth century. One can point to well known episodes in American history of that century and find that many took place in or near these 10 communities. For example, the setting for The Virginian, an American classic about the old West, is the town of Medicine Bow in Carbon County. In its day, The Virginian was thought to have "told it like it was" about the railroad and cattle towns which rapidly developed as a result of the Union Pacific Railroad.

## Circumstances of Early Settlement

Trappers, fur traders and missionaries were among the first arrivals in three sites (Craig, Carbon County, and South Umpqua), although in most cases, they had little influence on permanent settlement. The communities were settled and subsequently shaped socially and economically by more permanent people attracted to such local opportunities as farming/ranching, logging, mining, land speculation and the attractiveness of land acquisition through settlement.

With the exception of Craig, where people settled specifically for salmon fishing and canning, these settlement patterns seem to form regional patterns. Communities in New England, the South and the Midwest were settled, basically, for purposes of farming and land speculation. Communities in the Far West were settled as a result of gold prospecting, government land programs or logging. There are exceptions to these statements. For example, logging was done in the early years of Union 58 and Perry County. However, the main occupation in these communities in the earliest times was farming.

The restlessness which de Tocqueville found when he examined the American personality is demonstrated in at least four of the communities by their settlement patterns. Lead-Deadwood is the classic example of a mining community where early settlers went to "strike it rich fast." Win or lose, most had no intention of remaining and, in fact, few of the early prospectors did. Carbon County was along the Union Pacific transcontinental rail route. Railroad towns sprang up and vanished overnight as people moved through that area laying two miles of track each day. After salmon runs in communities to the south had been depleted, early settlers in Craig intended to exploit the salmon runs there and then move on. Finally, in Hancock County, farmers developed their land, sold it before the soil lost its richness, and then sought new land elsewhere. Since Hancock County was located on the main route west, land speculation was brisk, especially in the first 20-30 years of settlement.

On the other hand, a few communities in this study exhibit an early stability in contrast to this theme of restlessness. Union 58 maintained a slowly but steadily increasing population from the beginning of its initial settlement; opportunity for entrepreneurship in terms of land speculation or quick industrial fortunes did not exist there. The settlers of the two northwestern communities (South Umpqua and Quilcene) felt that the frontier had been reached and formed articulate plans to create a stable society. This is especially true in South Umpqua, where groups of friends and relatives came from other parts of the country to settle the area through a government sponsored land acquisition program.

## The Emerging Structure of Each Community

Each of the communities exhibited a definite emerging social, economic and value structure. The reasons for initial settlement have been explained above in general economic terms. The salient occupations practiced in the early years were:

Constantine--Farming and exporting of farm products

Craig--Salmon fishing and canning

Carbon County--Railroading, coal mining, cattle and sheep ranching, logging

Lead-Deadwood--Gold mining

Hancock County--Farming and mining

Union 58--Farming and logging

Perry County--Growing cotton and lumbering

Quilcene--Logging and farming

South Umpqua--Farming and mining

Willcox--Ranching, mining and servicing military installations

There is a wide variation in the degree of social stratification of the 10 communities. In at least three communities, class distinctions were made among the early settlers. Hancock County contained the most clearly defined social strata. As noted above, social distinctions were made between farmers who worked the small hill farms and those river bottom farmers who were styled "plantation owners." In addition, a third stratum consisted of coal miners who developed mining settlements that were quite distinct from the farming communities. Of the early settlers in Hancock County, highest social status seems to have been given to people who originally came from Virginia.

Ethnic stratification is reported in Lead-Deadwood, Craig, and Willcox. In Craig, ethnic stratification was based on the white man/Indian dichotomy. In Lead-Deadwood, the opportunity of employment in the Homestake Mine soon attracted miners directly from Europe, including Cornish, Italians, Scandinavians and Slavs. Some of these groups attempted to create parochial schools in the early years but were unsuccessful. The Willcox population was comprised of a substantial portion of Mexicans and Indians in its early years.

One striking characteristic of the value systems of many new communities was the degree to which neighbors provided assistance to each other. This was noticeable in Hancock County, South Umpqua, Quilcene, Perry County, and especially in South Umpqua, where in the early days, surplus food (venison, for example) was given to neighbors. The climate for promoting this type of personal interrelationship was due, in part, to the fact that the South Umpqua area was settled by groups of friends or relatives who had previous commitments to ensuring the survival of people in the community outside of their immediate families.

Values and folkways which had been developed in earlier eastern settlements were later transported to the western communities by the new settlers. For example, the settlers of South Umpqua had been pioneers in Kentucky and Kansas. The South Umpqua area was almost totally settled within two years from the time the federal government first offered the land, and there was little of the lawlessness which accompanied earlier land settlements of this sort. Lead-Deadwood, a gold mining community with characteristics of earlier mining towns, did not experience as much violence over claim disputes as did earlier gold boom areas. In part, this was due to the fact that the prospectors themselves had developed enough experience from former strikes to establish quickly an operative informal legal system which processed mining claims. This system had developed slowly and had been accompanied by a higher degree of violence in previous mining areas, such as California and Montana.

In all cases, churches and schools were the first institutions established in early settlements. Interestingly, the tendency was for churches to be built prior to schools in southern, eastern and midwestern communities. The western communities (Lead-Deadwood, South Umpqua, Quilcene, Craig, and Willcox) and Constantine, on the other hand, built their schools before building churches. One may speculate that the sheer size of some communities (for example, Carbon County School District No. 2 is almost as big as the state of Connecticut) made it difficult for specific religious denominations to meet together regularly, whereas a school could include as many people who lived within a local area. Thus, schools were the easier institution to establish.

Other early institutions that were developed after churches and schools included courts, post offices and newspapers. Newspapers, especially, seemed to be an important factor in all communities once they were established.

## Early Educational Institutions

The first schools in four sites (Hancock County, Lead-Deadwood, Perry County and South Umpqua) were private and were supported through tuition payments. These schools were in session a major part of the year. After public schools supported through taxation were established, school attendance became less regular and sessions were shorter. In part, this may have been due to the need to have students help with the seasonal agricultural work; it was also due to the amount of money that was raised to support the schools. For example, after the Civil War, Mississippi passed legislation which established free schooling statewide for four months of the year, thus affecting all the schools of Perry County. The first county supported school in South Umpqua (in the 1850s) was open for three months.

On the other hand, in some communities public schools were attended regularly throughout the year. In Union 58, appropriations for public schooling with regular school sessions were made from the time of early settlement. Constantine had a public school system in 1830-31, only two years after settlement; a 12-month attendance requirement was added later. Provision for a county-wide school system was one of the first items of business upon organization of Carbon County within the new territory of Wyoming in 1869.

## General Community Development Through the 1960s

This section discusses the trends of community development along demographic, economic, socio-cultural, political and educational dimensions. The periods under discussion are from approximately 20 years after the initial settlement through the 1960s.

## Demographic Characteristics

No demographic trends are clear across all 10 communities. Up to the 1960s, each community gained and lost population during various periods of its development. In all cases, these gains and losses were related either to shifts in modes of transportation (such as the bypassing of Constantine by the railroad) or the depletion of a natural resource (such as the exhaustion of the timber industry in Perry County). One demographic trend does appear in seven of the 10 communities: Perry County, Constantine, South Umpqua, Lead-Deadwood, Quilcene, Hancock County and Craig all experienced population increases during the depression of the early 1930s. One might speculate that rural areas hosted a societal retrenchment. When higher paid, more sophisticated jobs became scarce, rural communities absorbed a portion of the urban population who attempted to return to the land. As stated earlier, some of the 10 communities, such as South Umpqua, offer an ideal environment to those who only require the basics of living; i.e., enough to eat and a moderate climate. Lead-Deadwood, however, gained population because of increased employment opportunity in the mines which was due to relaxed government restrictions on gold mining and the increased demand for gold which a depression tends to cause.

## Economic Development

The communities may be divided into two groups according to their economic development from the end of their periods of early settlement until the 1960s. One group of communities relied on only one or two industries throughout most of this period; other communities diversified industry which developed as national need and local circumstance arose.

In the category of those communities which had only one or two major industries until the 1960s are Craig, Union 58, Perry County, and Lead-Deadwood. Neither Craig nor Lead-Deadwood felt the need to diversify their industry because the major natural resource had supported each community for many generations, and in fact, as stated above, both communities gained population during the Great Depression because of increased employment opportunity. Aside from the basic lack of fertile soil and major minerals, Craig's abundance of salmon through the 1950s created a one-industry community. Lead-Deadwood's abundant gold resource also created a one-industry community. In the 1960s, however, Craig's business leaders felt that the economy needed to diversify, and several economic development associations were formed.

On the other hand, the lack of a single major natural resource caused Union 58 and Perry County to become two-industry communities. Because of soil quality, Perry County never became the massive cotton producer that her neighboring counties did. Union 58's geographic position in an isolated corner of northern New England constrained large-scale early immigration; relatively little land was cleared for farming, and the development of good roads to assist further growth was slow. In addition to farming, economic prosperity in both Union 58 and Perry County has been partly dependent on wood products industries. Recent economic growth in Perry County is a result of rich lumber resources (an outcome of the reforestation program in the 1930s) and a good highway system; in fact, several lumber companies have recently located in Perry County for these reasons. Union 58's economic growth has been slow because lumber resources are not as rich as those in Perry County, and transportation to metropolitan areas to the south is blocked by an incomplete interstate highway.

Although the economies of Craig, Lead-Deadwood, Perry County, and Union 58 have undergone extreme ups and downs, they have continued to remain dependent on those industries which have in the past provided support to the majority of the local residents.

Six of the 10 communities have a diversified economic pattern. In addition to light manufacturing, Constantine's economy in the past was largely dependent upon the shipping of agricultural products; its fortunes rose and fell with the rise and decline of river transport and with its accessibility to the railroads. When a new highway and mobile home manufacturing plants were opened in the 1960s, its economy was no longer dependent solely on agricultural products.

Carbon County went through a series of economic booms and busts based on cattle, sheep, gold, copper, coal, uranium and the railroad. Its location on the main route west enabled it to capitalize on the multiplicity of enterprises which took place there. Some of the railroad camps did not shut down once the rail crews moved on, but became centers for coal mining and cattle shipping. The railroad stimulated the development of these communities whose economies were dependent on it for transporting their products.

Quilcene began its economic life as a logging, farming and mining (copper and manganese) community. In the 1920s, the federal government established forest service and fish hatchery installations there. Thus, in addition to logging, there has recently been more opportunity for employment in public agencies.

The prune industry was a major economic factor in South Umpqua for 60 years and was profitable until 1919. But South Umpqua also has a wealth of natural resources which enables local residents to support themselves in a variety of ways. Nickel is mined in large quantities just outside the school district; gold and lead are also mined in small amounts. Cattle and sheep ranching, farming, and lumbering also provide employment for a number of persons.

Willcox began as a railroad community. Farmers were attracted to the area after a year of unusually heavy rainfall in 1905. When dry farming proved impractical, irrigation systems were developed. Cattle ranching was also practiced, and by the 1960s, retirement communities and other service industries were part of Willcox's economy.

Hancock County began as an agricultural community, but developed a mining industry almost immediately after initial settlement. These two industries declined around 1910; after they revived briefly in the 1950s, light industry began to move into the community. Two factors helped Hancock County to diversify its industry: local residents actively searched for ways to attract new industry into the area, and Hancock County was accessible to the metropolitan center of Louisville by a serviceable road.

## Social and Cultural Traditions

Of the many characteristics defining the 10 localities, the term independence is emphasized in describing the social and cultural traditions of five communities (Constantine, Carbon County, Union 58, Quilcene and South Umpqua). Interestingly, in these communities, an atmosphere of cooperation and helpfulness has existed alongside independence.

Social and political life in three western communities has been dominated by descendants of early settlers (Quilcene, South Umpqua, and Wilcox). Two communities reported discrimination against some ethnic group during their developmental phases. In Lead-Deadwood, the Ku Klux Klan was active during the 1920s and promoted anti-Catholic discrimination. Discrimination against Catholics is not apparent in Lead-Deadwood today. Black educational facilities in Perry County were inferior to white facilities throughout its development until the 1960s, when the schools were desegregated.

Cultural activities were initiated and supported by a private source in only one community, Lead-Deadwood, A member of the Hearst family, which owned Lead's main industry, the Homestake Mine, donated funds to build a library, financed periodic musicales, and established a free kindergarten.

## Political Characteristics

The key word in politics in at least four of the communities (Constantine, Hancock County, Lead-Deadwood and Union 58) has been conservatism. Until recently, Constantine and Hancock County have at various times been reluctant to accept federal assistance, because of unacceptable conditions attached to the programs.

In two communities, Craig and Perry County, minority groups were discriminated against politically. The city charter prevented Alaskan Indians from voting until 1924 in Craig. The Mississippi State Constitution virtually eliminated black participation in government after the War between the States.

In two communities, Carbon County and Lead-Deadwood, a large corporation has wielded considerable political influence over the community and in state affairs. In Carbon County, the Union Pacific Railroad, which owned vast amounts of property and natural resources, was thought to exert considerable influence on the Wyoming State

Legislature. In South Dakota, the Homestake Mine has played a major role in state government, and mine employees have served in the state legislature.

All but one of the communities have developed a form of government which involves some combination of a mayor, city (or county) council and/or city (or county) manager. Quilcene, on the other hand, is unincorporated, and has no one person at the head of local government. The only elected officials serving Quilcene are the school board and the county commissioners. In some communities, civic clubs, for example, the Boosters' Club, perform some of the traditional governmental functions and services.

## Educational Development

A major issue in the educational development of the communities through the 1960s was the timing and circumstances surrounding their consolidation into larger school districts. In Carbon County and Lead-Deadwood, the consolidation process was not accomplished until 1972. In three sites consolidation has not occured. Union 58 consists of three separate school districts, Northumberland, Stark, and Stratford, which share a superintendent, but do not form a single educational or political unit. In Craig, Klawock's students attend Craig's high school and in Quilcene, Brinnon students attend Quilcene's high school, but the districts are consolidated.

The communities presented a wide range of feeling and attitude toward their school systems. Constantine, which began consolidation in 1920, has always taken pride in the quality of its schools, and its educational development was marked by community support of the schools. Craig, on the other hand, has had a history of strained relations between school and community. School personnel have tended to be outsiders who came to this isolated community "for the experience" and who did not settle there. Thus, the high turnover of school personnel has continued to create a new cadre of "not to be trusted" outsiders. In Quilcene, a generally harmonious community, the issue of consolidation with Brinnon has been a divisive one because local residents have felt strongly the need to retain local identity through their schools.

In three communities, high staff turnover and recruitment of school personnel have been major issues up through the 1960s. In addition to Craig, both Hancock County and Union 58 have had difficulty with teacher recruitment. Hancock County's recruitment problem was a result of salaries that were significantly lower than those paid to personnel in neighboring communities. In Union 58, inadequate school facilities and older buildings (no new buildings have been constructed since 1916) have contributed to the difficulty of recruitment.

In contrast to Union 58, Willcox constructed new facilities frequently during the 1960s and 1970s. Another major expenditure in Willcox's school budget is busing. Willcox and Carbon County School District No. 2 have the most extensive busing programs of all the communities, and transport their students over long distances to consolidated schools. Many ranch and farm children are unable to participate in extracurricular activities because of busing schedules.

School sports, especially basketball, have played a major role in the social activities of at least five communities (Union 58, Craig, Hancock County, Lead-Deadwood and Constantine). In these communities, school rivalries have served as a focal point for maintaining local identity in the face of consolidation. In Craig, basketball games have served the additional purpose of strengthening the self-image of community members.

## The Communities at the Time of Entry of the Experimental Schools Projects

### Demographics

Whereas out-migration and population decline have often been thought of as a national rural problem, most of the 10 communities have reversed this trend in the recent past. Seven--Constantine, Hancock County, Perry County, Carbon County, South Umpqua, Craig and Willcox--report current in-migration. Quilcene reports little change in population during the five years prior to 1972. Only two (Lead-Deadwood and Union 58) report declining population. In the case of Lead-Deadwood, it would not be surprising if this trend was reversed at the next census count in light of a rising world gold market, new national legislation on citizens' rights to purchase gold, and the current national economic situation which parallels the 1930s, when Lead-Deadwood gained population.

What has caused in-migration to take place? In Constantine and Hancock County, industry attracted people to a rural area who commute to jobs outside the community in nearby population centers. Since many of these commuters are young families, the well known trend of young people leaving the community for lack of employment opportunity has been reversed. Moreover, the expanding mobile home industry near Constantine and new industries (such as the aluminum plant) in Hancock County have created additional jobs and opportunities for workers of all ages. Recent redevelopment of the coal industry (stimulated by current environmental concerns and new energy needs), as well as by the recent rediscovery and development of uranium mining, have contributed greatly to the burgeoning population of Carbon County. South Umpqua, a fourth community to experience in-migration, is also gaining population among younger people. Recent high school graduates are remaining in the community and finding work. This pattern is augmented by an in-migration of people of all ages who make their living from crafts and the arts, or who have sufficient funds to stimulate the economy through building vacation homes or pursuing other leisure time activities.

The figures from Willcox, another community reporting in-migration, indicate that the trend of younger people leaving is more balanced by the in-migration of older citizens due, in great part, to the development of retirement communities. Quilcene, one of the communities reporting a stable, unchanged population, indicates that younger people still leave the community for lack of employment, while older people retire there.

Population growth, which is partly dependent upon the ability of a community to provide employment for its residents by expanding local industry, attracting new industry, or through accessibility to nearby industries outside the community, is affected by good roads. Perry County, Constantine, and Willcox all have complete networks or more than adequate roads; an interstate highway serves South Umpqua and Carbon County. All these communities reported rising population in the 1970s. Union 58, on the other hand, remains in a socio-economically isolated position; the loss of population may be related to the incomplete interstate system in that area. Lead-Deadwood's population decline may be due, in part, to its being bypassed by the interstate system.

## Social and Cultural Status

Residents of six communities reported (in a survey conducted by Abt Associates) that they have a general feeling of extreme satisfaction with the rural lifestyle (Union 58, Constantine, Hancock County, Quilcene, South Umpqua, Willcox). The positive aspects of the lifestyle tend to be clean air, space, slow pace and attractive rural values.

While economic benefits of an interstate highway system through or near the community are obvious, the social and cultural opportunities at nearby population centers are also brought closer to formerly isolated communities. On the one hand, this enables residents of these places to develop a broader view and greater understanding of other lifestyles. On the other hand, urban influences within the community become more in evidence, often to the dismay of the residents themselves. For instance, Hancock County is now experiencing a minor assault on the old agricultural values of the community as the new, urban ori[illegible] people who have moved into the community make themselves felt at the [illegible] with demands for more urban oriented services.

## Economics

One indicator of the current economic situation in the 10 communities is the percentage of families below the poverty level, which ranges from 35% in Craig to 8% in Constantine; the mean percentage is 13.8%. Since the percentage of families below the poverty level is approximately 17% nationwide, poverty in the 10 communities is not as widespread as in the nation as a whole. In fact, only Perry County, Craig, and Union 58 have a poverty index of over 20%.

Currently, tourism is on the rise as an income producer. Seven communities (Union 58, Lead-Deadwood, Carbon County, Quilcene, South Umpqua, Willcox and Craig) have an interest in or active involvement with it. While some of these communities, such as South Umpqua and Quilcene, have been catering to tourists for several years, others have only recently begun to try to attract tourists. In South Umpqua, land values are beginning to rise with the construction of retirement homes. Craig has recently begun to identify possible points of tourist interest in the area and to make plans for attracting tourists.

The communities present a diverse picture in their level of effort towards economic development. In the five years prior to 1972, five communities (Craig, Constantine, Hancock County, Willcox and Carbon County) have articulated plans to attract new industry and spur growth. In 1969, Constantine formed an Area Development Corporation to promote industrial growth. In 1971, Willcox wrote a comprehensive plan aimed at attracting new business; it also has a development corporation. The Grand Encampment Museum was begun in 1964 to develop the tourist industry in Carbon County; in 1967 the Southern Wyoming Development Corporation was formed to promote a large ski and winter recreation resort complex in the Medicine Bow Mountains near Saratoga and Elk Mountains. Craig established an overall economic development committee in 1968. Under the Alaska Native Land Claims Settlement Act of December, 1971, each native Alaskan villager received an individual financial settlement plus stock in a regional and local development corporation formed to receive cash settlements as well as land for use in capital assets in pursuit of profits. Activity in Craig since 1971 has centered around forming and operating such a regional and local corporation. Since the population of Craig is approximately 50% native Alaskan, this act has had significant impact on the social, cultural, economic and political processes of the community. On the other end of the scale are communities such as Union 58 and Quilcene, which have made little or no effort in an organized way to attract new industry. In both those communities, residents have expressed satisfaction with the status quo, and efforts at increased commercial development would meet with opposition from many people.

## Political Status

The communities present a wide range of political structures. Part of the variance in community government can be explained in regional terms. It is well known that the South has always had strong county governments and county political units. On the other hand, New England's local government has always stressed the town or city political unit; while counties exist throughout New England, they tend to be politically weak and serve more as geographic boundaries and units for service delivery or coordinated communication than for local government. Thus, Hancock and Perry Counties in the South stress a county government while the three towns within Union 58, in northern New England, govern themselves through town selectmen, locally elected at the annual town meetings.

Most of the communities are still portrayed as being conservative. There are signs of changes, however. Constantine shows a decline of active political participation by the "first families" and a shift to more blue collar participation in local government. Mexican American emergence in Willcox's local government will possibly bring an additional influence to that community. There are also signs that the political balance in Carbon County may be shifting.

Craig is the one community of the 10 where ethnic politics plays a predominant role. With a population that is approximately 50% native Alaskan Indian, Craig has been involved in the Alaskan native land claims struggle of the past decade. Now that many concessions have been won by the Indians, the future of this struggle will inevitably involve the use of economic leverage awarded to Alaska's Indians through recent legislation.

The least governed, although by no means the least politically concerned community, is Quilcene. Quilcene is more of a geographic area than a political unit. Neither Quilcene nor Brinnon is incorporated. Law enforcement and property tax assessment are conducted by the county government. However, local clubs, such as the Boosters Club, do perform some governmental functions.

## Education

The schools in all of the 10 communities operate under the control of some kind of school board. In all cases, the supervisory school board is popularly elected. The supervisory school board usually hires the school superintendent, except in Perry County, where the superintendent is an elected official who must be a resident of the county. Although school boards are elected, most boards are composed of residents whose families have lived in the community for several generations.

While the average cost per pupil per year in the 10 communities is $1,000, this figure is somewhat biased by Craig's average cost per pupil of $2,293. Only two other communities have an annual per pupil expenditure higher than $1,000: Carbon County's is $1,290 and Lead-Deadwood's is $1,142.

Recruitment and staff turnover, problems which affected communities in the 1960s continue to do so in the 1970s in Hancock County, Supervisory Union 58, and Craig. These three communities all report teacher salaries which are below their state average, as does Constantine also. Since salaries in urban areas tend to be higher than those in rural areas, it would not be surprising if teachers' salaries in all 10 communities were slightly lower than state averages.

Five communities (Constantine, Lead-Deadwood, Quilcene, South Umpqua and Willcox) report that teachers are well trained and that many have advanced degrees.

In most communities, approximately 50% of the graduating seniors remain in the community (Table 1). In Lead-Deadwood, a significantly lower percentage (20%) of the graduating seniors remain in the community than in the other communities. These figures do not address the total issue of young people remaining in rural communities, however. There are no figures which show how many young people return to the community after temporarily relocating elsewhere.

Craig, Willcox and Carbon County have the highest percentages of graduating seniors who go on to some form of further education (Table 2). Only a low percentage of graduates receive training other than college.

In Willcox and Craig, few students who do go on to college obtain a degree. In Craig, it was felt that the students were ill equipped to deal with the pressures of more urbanized life outside of their isolated, rural hometown. The curriculum in Craig's schools has recently been redesigned to include student exchange programs in order to expose students to situations outside of the community prior to their high school graduation.

## Table 1
## PERCENT OF GRADUATING SENIORS (1970) WHO REMAINED IN COUNTY ONE OR MORE YEARS AFTER GRADUATION

| Community | Percent | |
|---|---|---|
| | Male | Female |
| Craig, Alaska | 40.0% | 20.0% |
| Willcox, Arizona | 37.6% (overall) | |
| Hancock County, Kentucky | 66.7% | 48.5% |
| Constantine, Michigan | 35.4% | 52.2% |
| Perry County, Mississippi | 59.3% | 29.0% |
| Union 58, New Hampshire | 43.9% (overall) | |
| South Umpqua, Oregon | 56.6% | 53.5% |
| Lead-Deadwood, South Dakota | 20.0% (overall) | |
| Quilcene, Washington | 50.0% | 45.5% |
| Carbon County, Wyoming (School District No. 2) | 58.3% | 60.5% |

Source: 1970 Census Data on Counties, Social and Economic Accounting System.

### Table 2

### PERCENT OF GRADUATING SENIORS (1970) WHO WENT TO FURTHER TRAINING IN THE YEAR FOLLOWING HIGH SCHOOL

| Community | Total | Seniors Going to College | Seniors Going to Other Training |
|---|---|---|---|
| Craig, Alaska | 70.0% | 60.0% | 10.0% |
| Willcox, Arizona | 71.7% | 62.4% | 9.4% |
| Hancock County, Ky. | 26.7% | 26.7% | - |
| Constantine, Michigan | 35.0% | 25.6% | 6.5% |
| Perry County, Miss. | 27.6% | 21.1% | 23.6% |
| Union 58, New Hampshire | 48.6% | 25.0% | 12.0% |
| South Umpqua, Oregon | 41.8% | 29.5% | 12.3% |
| Lead-Deadwood, S. Dakota | 38.4% | 37.9% | 0.5% |
| Quilcene, Washington | 40.0% | 28.0% | 12.0% |
| Carbon County, Wyo. (School District No. 2) | 71.0% | 46.7% | 24.3% |

Source: 1970 Census Data on Counties, Social and Economic Accounts System.

Six communities (Constantine, Carbon County, Lead-Deadwood, Quilcene, South Umpqua and Willcox) stress college preparation in their curricula. Three communities (Craig, South Umpqua and Willcox) sponsor career education courses or programs. Thus, South Umpqua and Willcox stress both college preparation and career education.

Whereas few histories discuss the relationship between curriculum and student satisfaction, the report from Quilcene, which had the highest recorded dropout rate, indicates that those students not involved in college preparation courses are extremely alienated. It is likely that this occurs in other communities where college preparation is stressed at the expense of other types of educational offerings.

Seven communities (Craig, Lead-Deadwood, Carbon County, Union 58, Perry County, Quilcene and South Umpqua) still indicate some divisiveness over the issue of consolidation. In most cases, loss of local control and local identity remain the basis for negative feelings about consolidation. In Carbon County, some communities resisted consolidation because they feared that their financial position would be eroded and the quality of their educational program lowered. In Craig, the added tax burden arising from consolidation was seen as harmful to some of the outlying logging communities.

Residents of some of the school districts are depicted as having little involvement in their educational systems. For example, residents of Union 58 appear satisfied with the quality of education their children receive, and their main concerns are centered around discipline and keeping costs down. On the other hand, there is strong interest in maintaining the local schools and in having children attend schools in the communities in which they live. Then, too, losing a school to a wider regionalization process would mean losing athletic teams, a major source of community identity. Compared to town meetings, school meetings are not nearly as well attended, although the school budget is frequently larger than the town budget.

Some communities, such as Constantine, take pride in the quality of education in the schools and lend strong support to the school system. Hancock County's recent comprehensive study of the school system through an outside consultant is another example of a community preparing to improve its schools.

## History of Experimental Schools Program Grant Application

Except in Union 58, the prime motivating force behind the proposals to OE was the school superintendent. In Union 58 a school principal initially applied for his own school, and the application was later expanded to include other schools in the union. The most aggressive application came from the superintendent at Craig, who applied even before it was clear that Craig was eligible to apply for funds. South Umpqua had earlier applied for an Experimental Schools grant for large school districts. Although in many cases the superintendent did not actually write the application, he did initiate the process for it. In Constantine, it was written by the superintendent, three principals, and a teacher. In Willcox, a middle school principal aided by the superintendent and several teachers wrote the proposal. The Craig application was written by several key teachers with the superintendent serving as project coordinator.

In Carbon County, the ES program became a catalyst for unifying the communities and schools involved in the recent reorganization and consolidation. In Lead-Deadwood, reorganization was the catalyst for interest in ES. The issues of consolidation and reorganization which were being raised in these communities intersected with the possibility of receiving the grant. The planning for the grant became the forum within which the implications of reorganization were discussed.

# Chapter XIII

# Placing the Findings into Perspective

by

Gerald Goldman

with

Abby Freedman

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# CHAPTER XIII. PLACING THE FINDINGS INTO PERSPECTIVE

## Introduction

This chapter compares developmental and present characteristics of the 10 communities with those of rural communities across the country. It also analyzes historical characteristics of the communities which may enhance or constrain the development and effects of the Experimental Schools program.

## A Comparison of the Developmental Characteristics of the 10 Communities with Those of Rural Communities across the U.S.

This section compares the demographic, economic, educational and transportation trends of the 10 communities as a group with those of rural America in the twentieth century until 1970. Individual communities are used as examples of how typical or atypical the 10 communities are in comparison with those in rural America.

### Demographics

Table 1 presents census data on the number of rural places and on the number of their residents for the period 1910-1970. Although the re-definition of "urban" in 1950 causes difficulty in time series studies of these data, several general conclusions can be drawn from Table 1. First, the image of the dying small town may be a myth, at least on the aggregate level. The number of rural places, both under 1,000 and from 1,000-2,500 in population, shows very little decline from 1910 to 1970. In fact, the number of places with 1,000 to 2,500 persons has grown rather steadily. Much of the decrease in the number of places with less than 1,000 persons between 1940 and 1970 may be attributed to the re-definition of the "rural" and "urban" categories made by the Bureau of Census in 1950.

Viewed from a slightly different perspective, rural America has been in a population decline even though the number of people living in rural areas has steadily increased. The rural population has increased

## TABLE 1
## NUMBER OF URBAN AND RURAL PLACES AND POPULATION*

| Category | Previous Urban Definition | | | | | Current Urban Definition | | |
|---|---|---|---|---|---|---|---|---|
| | 1910 | 1920 | 1930 | 1940 | 1950 | 1950 | 1960 | 1970 |
| Urban | | | | | | | | |
| # Places | 2,262 | 2,722 | 3,165 | 3,464 | 4,054 | 4,741 | 6,041 | 7,062 |
| Population (in thousands) | 41,999 | 54,158 | 68,955 | 74,424 | 89,749 | 96,468 | 125,269 | 149,325 |
| Percent of Total Population | 45.7% | 51.2% | 56.2% | 56.5% | 59.6% | 64.0% | 69.9% | 73.5% |
| Rural | | | | | | | | |
| a) Places Under 1,000: | | | | | | | | |
| # Places | 9,113 | 9,825 | 10,346 | 10,083 | 9,831 | 9,649 | 9,598 | 9,515 |
| Population (in thousands) | 3,930 | 4,355 | 4,363 | 4,316 | 4,129 | 4,031 | 3,894 | 3,852 |
| Percent of Total Population | 4.3% | 4.0% | 3.6% | 3.3% | 2.7% | 2.7% | 2.2% | 1.9% |
| b) Places 1,000-2,500: | | | | | | | | |
| # Places | 2,717 | 3,030 | 3,087 | 3,205 | 3,404 | 4,158 | 4,151 | 4,191 |
| Population (in thousands) | 4,234 | 4,712 | 4,821 | 5,027 | 5,383 | 6,473 | 6,479 | 6,656 |
| Percent of Total Population | 4.6% | 4.5% | 3.9% | 3.8% | 3.6% | 4.3% | 3.6% | 3.3% |
| c) Other Rural: | | | | | | | | |
| Population (in thousands) | 41,809 | 42,586 | 44,637 | 47,903 | 51,437 | 43,725 | 43,654 | 43,379 |
| Percent of Total Population | 45.5% | 40.3% | 36.4% | 36.4% | 34.1% | 29.0% | 24.3% | 21.3% |

---

*Statistical Abstract of the United States, p. 18.

proportionately less than the urban population; i.e., the total rural population is a decreasing percentage of the total U.S. population. As this percentage dwindles, the rural population of the U.S. may have less economic, political, and educational importance to the country as a whole.

The population of rural America has been quite stable over the entire twentieth century, and particularly in the years 1950-1970. This may be an indication of the inherent strength of rural America, or it may be that the proportionately lower rate of population growth as compared to that of the United States is a sign of continuing weakness. While these aggregate data limit their applicability to individual communities, if the 10 communities were typical of rural America, they would show neither sharp increases nor decreases in population after the initial settlement period. As has been stated in Chapter XII, this was, in fact, the case through the 1960s.

Table 1A shows that the years 1950-1970 saw relatively slow population growth, not only for the counties in which the 10 communities are located, but also for rural America in general. However, in aggregate, the 10 counties showed a slightly greater increase in population than rural America as a whole. Table 1B shows that division of the 1970 non-SMSA population by the 1950 non-SMSA population results in a growth rate of 1.08 for the total rural American population for the period 1950-1970, where 1 represents neither plus nor minus growth. For the 10 communities in aggregate, the same division results in a growth rate of 1.26 for the same period. Although the population growth of the 10 communities was slightly greater than that of rural America, it is not sufficiently greater to label it as atypical of that of rural America. Of the nine communities on which we have data, four grew at a slightly higher rate than the national rate and four showed minus growth. Cochise County (Willcox) was the most rapidly growing community, increasing in population at twice the national rural growth rate.

The distribution of rural population between rural farm and rural non-farm categories has changed drastically since 1910 and especially

## TABLE 1A
## POPULATION OF U.S. NON-SMSA AND THE TEN RURAL COUNTIES*
(in thousands)

| County | Year | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 1950 | 1956 | 1962 | 1965 | 1967 | 1968 | 1969 | 1970 |
| Prince of Wales, Alaska (Craig) | | | | | | | 2.1 | 2.1 |
| Cochise Co., Arizona (Willcox) | 31.8 | 53.3 | 53.7 | 56.3 | 58.0 | 58.8 | 60.5 | 62.6 |
| Hancock County, Kentucky | 6.0 | 5.3 | 5.6 | 6.2 | 6.4 | 6.8 | 6.9 | 7.1 |
| St. Joseph Co., Michigan (Constantine) | 35.3 | 42.0 | 41.8 | 43.6 | 45.1 | 45.7 | 46.4 | 47.5 |
| Perry County, Mississippi | 9.1 | 8.6 | 8.1 | 8.9 | 9.1 | 9.1 | 9.1 | 9.1 |
| Coos Co., N.H. (Union 58) | 35.8 | 36.5 | 36.5 | 34.5 | 34.7 | 34.4 | 34.6 | 34.5 |
| Douglas Co., Oregon (South Umpqua) | 54.9 | 67.6 | 66.4 | 72.4 | 71.3 | 68.0 | 70.4 | 72.1 |
| Lawrence Co., S. Dakota (Lead-Deadwood) | 16.7 | 16.7 | 17.2 | 17.0 | 16.7 | 17.7 | 17.6 | 17.4 |
| Jefferson Co., Washington (Quilcene) | 11.7 | 9.5 | 9.7 | 9.5 | 10.1 | 10.5 | 10.0 | 10.7 |
| Carbon County, Wyoming | 15.7 | 14.5 | 14.4 | 14.2 | 12.7 | 12.8 | 13.1 | 13.4 |
| Total | 21.7 | | | | | | | 274.4 |
| U.S. Non-SMSA | 50,402.1 | 51,305.4 | 52,759.9 | 53,569.1 | 53,680.7 | 53,803.3 | 53,999.7 | 54,407.1 |

*U. S. Department of Commerce, Bureau of Economic Analysis.

## TABLE 1B
## POPULATION GROWTH RATE, 1950-1970*

| County | Growth Rate |
|---|---|
| Prince of Wales, Alaska (Craig) | - |
| Cochise Co., Arizona (Willcox) | 2.00 |
| Hancock County, Kentucky | 1.20 |
| St. Joseph Co., Michigan (Constantine) | 1.30 |
| Perry County, Mississippi | 1.00 |
| Coos Co., N.H. (Union 58) | 0.96 |
| Douglas Co., Oregon (South Umpqua) | 1.30 |
| Lawrence Co., South Dakota (Lead-Deadwood) | 1.04 |
| Jefferson Co., Washington (Quilcene) | 0.91 |
| Carbon County, Wyoming | 0.85 |
| Aggregate Growth Rate - Ten Communities | 1.26 |
| U.S. Non-SMSA | 1.08 |

---

*Computed from figures supplied by U.S. Department of Commerce, Bureau of Economic Analysis.

## TABLE 2
## FARM AND NON-FARM COMPONENTS OF THE RURAL POPULATION: 1910-1970*

| Category | Year | | | | | | |
|---|---|---|---|---|---|---|---|
| | 1910 | 1920 | 1930 | 1940 | 1950 | 1960 | 1970 |
| Population (in thousands): | | | | | | | |
| Total Rural | 49,973 | 51,553 | 53,820 | 57,246 | 54,230 | 54,054 | 53,888 |
| Farm | 32,100 | 31,974 | 30,529 | 30,547 | 23,048 | 15,635 | 9,712 |
| Non-farm | 17,873 | 19,579 | 23,291 | 26,699 | 31,182 | 38,419 | 44,172 |
| Percent of Rural Population Farm | 64.2 | 62.0 | 56.7 | 53.4 | 42.5 | 28.9 | 18.0 |

---

*Statistical Abstract of the United States, p. 584.

since 1950 because of the combination of rapid technological progress in agriculture and the rise of non-farm employment opportunities in rural areas. The 10 communities also show this trend to varying degrees, depending upon a number of factors cited in Chapter XII. Because of the growth of industry, the population shift from farm to non-farm categories has been most dramatic in Hancock County in the 1950s and 1960s. In contrast, the shift in Supervisory Union 58 and in Quilcene has been noticeably slower.

## Education

School system reorganization, consolidation, and curriculum change have reshaped the nature of the educational institutions in rural America. Educational attainment and the quality of teaching have both improved dramatically, but rural communities continue to lag behind urban areas.

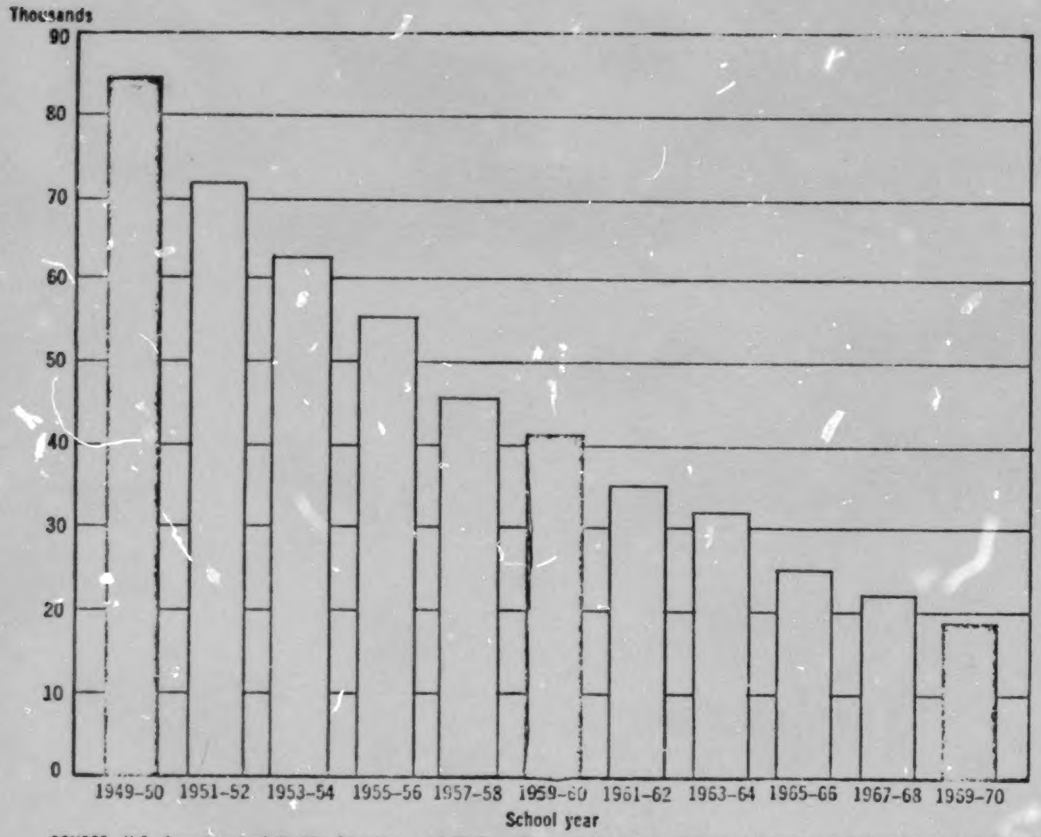
Horner, in "Rural Schools Renaissance Vital for U.S.," summarizes some of the problems of rural education (U.S. Department of Agriculture, A Good Life for More People, 1971, p. 162):

> The school is the center of rural life.
>
> Rural teachers are paid less, and qualified teachers desiring to teach in rural schools are in short supply.
>
> Farm people as a whole do not see the economic value of education, in dollars and cents.
>
> Both college and occupational aspirations of rural youth are lower.
>
> Rural youth tend to drop out of school at an earlier age. They are less successful than urban youth in the sense that they have more trouble getting a permanent job. Moreover, their jobs are not as high paying.
>
> Educational attainment of rural adults lags behind educational attainment of urban adults by almost 3 years.
>
> Local rural communities, generally, are not capable of financing needed general and vocational education, although rural areas allocate a larger portion of their limited resources to public education.

In comparing education in the 10 communities with Horner's statements, the problem of low teacher salaries is most noticeable. A number of the communities report lower teacher salaries than their state average. The 10 communities had a high correlation with the statement that rural communities are not capable of financing needed general and vocational education. Only two of the 10 communities had vocational education programs and only two had career education programs. Although the school dropout rate has been declining in the 10 communities, when a high school graduate goes on to college, the probability of completion is not high. On the other hand, in school districts such as Constantine and Hancock County, where unemployment has been low and industrialization has occurred, educational attainment and vocational aspirations have increased with the new economic needs of the community. Educational attainment, vocational aspirations and job success are on a higher level in these communities than in those in rural America in general.

The most dramtic change in rural education has been the decline in the number of school districts, which has been due in large part to the consolidation of small districts. Figure 1 shows the declining number of public school districts in the United States. Although there has been a national trend in the direction of consolidation, as of 1969-1962 there were still an estimated 13,000 one-teacher schools, nearly all of which were rural. This figure represented about 12% of all U.S. schools and about 1% of all school children. Clearly, then, schools were still undergoing consolidation well into the 1960s. Five of the 10 school districts in the Experimental Schools program did not effect major consolidation until the 1960s. In Lead-Deadwood, consolidation was not completed until 1971; in Carbon County, not until 1972; and in Union 58, consolidation never took place.

A commonly held view of rural America is that its residents have had less schooling than urban America. Table 3, which shows the percentage of persons 25 years and over with less than five years of school, with four years of high school, and with more than four years of high school for 1940, 1960, and 1970 by urban, rural non-farm, and rural farm categories, supports this statement. Increased educational attainment in rural areas is relevant in the evaluation of ES sites for two reasons. First, a more educated adult population would place a greater value on education, would be more concerned about its school system and would participate in its activities. Second, as employment



SOURCE: U.S. Department of Health, Education, and Welfare, Office of Education, "Digest of Educational Statistics" and "Fall 1969 Statistics of Public Schools."

Figure 1. Number of public school districts: United States 1949-50 to 1969-70.

## TABLE 3
## MEASURES OF EDUCATIONAL ATTAINMENT FOR PERSONS 25 YEARS OLD AND OVER BY URBAN AND RURAL RESIDENCE: 1940, 1960, 1970*

| Years of School Completed & Residence | Percent Persons 25 Years Old & Over | | |
|---|---|---|---|
| | 1940 | 1960 | 1970 |
| Less than 5 years of School: | | | |
| Urban | 11.4 | 7.3 | 4.9 |
| Rural non-farm | 13.9 | 10.9 | 7.2 |
| Rural Farm | 20.6 | 11.5 | 6.2 |
| Four years of high school or more: | | | |
| Urban | 28.8 | 44.2 | 55.2 |
| Rural non-farm | 23.3 | 34.5 | 44.9 |
| Rural farm | 12.4 | 29.4 | 42.2 |

---

*Education of the American Population: A 1960 Census Monograph, p. 157; and General Social and Economic Characteristics: A U.S. Summary--1970 Census, p. 405.

opportunities for persons with higher educational attainment levels increase in rural areas, the educational institutions should respond by providing a technological education that corresponds to the economic needs of the community, and in some instances should even anticipate them. As has been stated previously, however, most of the 10 school districts do not stress vocational or career education. Rather, they stress a liberal education for college preparation, and while this no doubt contributes to the quality of life of the young people and the community in which they settle, it seems only minimally related to the economic needs of the community. Most curricular changes seem to involve different approaches to teaching the same subjects; i.e., different groupings of students or different organization of classroom style, rather than changes in course content.

A third area of developmental change involves the quality of education. Table 4 shows the decline of the percentage of elementary and secondary teachers with less than four years of college in rural areas from 1940-1960. Part of the improvement in the level of teacher qualification may be attributable to consolidation and the corresponding reduction in the number of teachers in one-teacher schools.

Several federal programs have had a strong influence on rural education. The Elementary and Secondary Education Act of 1965 was directed at the educational facilities of rural areas, especially those in low-income areas. In addition, the Manpower Development and Training Act of 1963, the Vocational Education Act of 1963 and the Economic Opportunity Act of 1964 were aimed at meeting the educational requirements presented by the transition from farm to non-farm skills. All of these programs offered the opportunity for improving the quality of education in rural schools through greater extra-community involvement. The 10 communities have taken advantage of them in varying degrees. Some of them have had a history of being reluctant to receive federal funds. Constantine, for example, which did not take full advantage of WPA projects in the 1930s and survived the Depression rather well without federal funding, was slow to develop a "grantsmanship" attitude helpful in capitalizing on federal funding for education. Craig, on the other hand, has had a history of aggressive pursuit of federal assistance. Federal funds helped to improve boardwalks and roads in Craig in the 1930s.

## TABLE 4

## PERCENT OF ELEMENTARY AND SECONDARY TEACHERS WITH LESS THAN 4 YEARS OF COLLEGE, BY URBAN AND RURAL RESIDENCE AND SEX: 1960 and 1940*

| Urban and Rural Residence, and Sex | 1940 | 1960 | Percent Decrease, 1940-1960 |
|---|---|---|---|
| UNITED STATES | | | |
| Urban | | | |
| Male | 20.1 | 13.0 | 35.3 |
| Female | 41.3 | 25.5 | 38.3 |
| Rural | | | |
| Male | 32.8 | 13.9 | 57.6 |
| Female | 56.7 | 37.8 | 35.6 |
| Total | | | |
| Male | 26.3 | 13.3 | 49.4 |
| Female | 48.3 | 28.8 | 40.4 |

---

*1960 *Census of Population*, *Subject Reports*, *Characteristics of Teachers*, Series PC(2)-7D, table 4; and 1940 *Census of Population*, *The Labor Force*, Part 2, Chapter 2, *Occupational Characteristics*, table 3.

## Economics

The economic base of rural areas has become less farm oriented. As shown in the demographics section, rural non-farm population has increased, and rural farm population has decreased during the twentieth century. Another indicator of the changing economic base of rural areas is the change in employment distribution between 1940 and 1960, shown in Table 5. The employment of rural farm males has dropped from 83.4% to 69.5% in agriculture, forestry, and fisheries and has grown from 5.6% to 10.7% in manufacturing. Similarly, there has been a 5.1% increase in the percentage of rural non-farm males employed in manufacturing.

These changes affect not only employment in the community, but many other aspects of life as well. Hathaway, Beegle, and Bryant in People of Rural America, 1968 (p. 147) write:

> The shift in employment from farm and field to factory and office entails more than a mere change in occupation. The role and responsibility of family labor change as parents move from self-employment to wage and salary jobs in non-farm industries. Whereas on farms there might be a short-run economic advantage in having children leave school to work on the farm, in nonfarm wage employment there is little such incentive. Thus, attitudes regarding family size, educational attainment of children, and labor force participation by family members are related to the occupation of the head of the household.

Agriculture is still extremely important in the economic base of many rural areas, however. Table 6 shows the trends in the number and size of farms from 1920-1970. The number of farms has declined rapidly, especially since 1950. The total amount of farm acreage has decreased only slightly since 1950, and the average number of acres per farm has grown rapidly. Small, one-family farms are disappearing from rural America, not farms in general. Table 7 shows that farm income, both in crops and livestock, has doubled between 1950 and 1971, although rising costs have probably offset some of the gain in farm profits. Part of the strength of the agricultural sector of the rural economy is due to government payments to farms (e.g., soil bank programs). The data on the growth of direct government payments to farms between 1960 and 1972 appear in Table 8.

Table 6A documents the decline of farming in the 10 communities from 1967 to 1972. It shows that, with the exception of the proprietor

### TABLE 5
### PERCENT OF EMPLOYED MALES, BY INDUSTRY GROUP AND RESIDENCE, FOR THE UNITED STATES: 1960, 1950, and 1940*

| | Rural Farm | | | Rural Non-farm | | | Urban | | | Total | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Industry | 1960 | 1950 | 1940 | 1960 | 1950 | 1940 | 1960 | 1950 | 1940 | 1960 | 1950 | 1940 |
| Agriculture, forestry and fisheries | 69.5 | 76.3 | 83.4 | 10.1 | 11.0 | 9.4 | 1.5 | 1.5 | 1.5 | 9.0 | 15.9 | 23.5 |
| Mining and construction | 5.5 | 5.0 | 3.5 | 14.9 | 18.0 | 16.9 | 8.9 | 9.7 | 8.2 | 9.9 | 10.5 | 8.6 |
| Manufacturing | 10.7 | 8.5 | 5.6 | 30.9 | 26.6 | 25.8 | 32.3 | 32.0 | 32.0 | 30.2 | 27.0 | 24.2 |
| Transportation and communications | 2.6 | 2.2 | 1.5 | 7.8 | 8.8 | 8.5 | 9.4 | 11.1 | 11.0 | 8.5 | 9.2 | 8.1 |
| Wholesale trade, food and dairy products stores, eating and drinking places, other retail trade | 5.1 | 3.3 | 2.5 | 15.8 | 16.1 | 17.1 | 18.8 | 21.0 | 22.0 | 17.0 | 17.1 | 16.2 |
| Finance, insurance and real estate | 0.5 | 0.3 | 0.2 | 1.9 | 1.6 | 2.0 | 4.1 | 3.8 | 4.5 | 3.4 | 2.8 | 3.0 |
| Business and repair services | 0.8 | 0.8 | 0.5 | 2.9 | 3.9 | 3.1 | 3.2 | 3.4 | 2.9 | 2.9 | 3.0 | 2.3 |
| Private household and personal services | 0.5 | 0.4 | 0.5 | 2.1 | 2.6 | 3.3 | 2.9 | 3.6 | 4.6 | 2.5 | 2.9 | 3.3 |
| Entertainment and receration services | 0.1 | 0.1 | 0.1 | 0.6 | 0.8 | 0.9 | 0.9 | 1.3 | 1.3 | 0.8 | 1.0 | 0.9 |
| Educational services, welfare, religious, and nonprofit membership organizations, and other professional and related services | 1.6 | 1.0 | 1.0 | 6.2 | 5.0 | 5.6 | 7.8 | 5.7 | 5.4 | 6.9 | 4.8 | 4.3 |
| Public administration | 1.5 | 1.0 | 0.6 | 4.1 | 3.9 | 5.5 | 6.0 | 5.7 | 5.3 | 5.3 | 4.5 | 4.2 |
| Industry not reported | 1.6 | 1.1 | 0.6 | 2.7 | 1.7 | 1.9 | 4.2 | 1.2 | 1.5 | 3.6 | 1.3 | 1.3 |

---

*Retabulated and computed from data in 1960 Census of Population. Data for 1960 include Alaska and Hawaii.

## TABLE 6
## FARMS--NUMBER AND ACREAGE*

| Year | Number of Farms (in thousands) | Land in Farms: Total (million acres) | Land in Farms: Average Acres per Farm |
|---|---|---|---|
| 1920 | 6,518 | 956 | 147 |
| 1925 | 6,471 | 924 | 143 |
| 1930 | 6,546 | 987 | 151 |
| 1935 | 6,814 | 1,055 | 155 |
| 1940 | 6,350 | 1,061 | 167 |
| 1945 | 5,967 | 1,142 | 191 |
| 1950 | 5,648 | 1,202 | 213 |
| 1955 | 4,654 | 1,202 | 258 |
| 1960 | 3,963 | 1,176 | 297 |
| 1965 | 3,356 | 1,140 | 340 |
| 1970 | 2,954 | 1,103 | 373 |

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*Statistical Abstract of the United States, p. 585.

TABLE 6A
PERCENT CHANGE IN EMPLOYMENT BY TYPE, 1967-1972
U.S. NON-SMSA AND THE TEN RURAL COUNTIES*

| Employment Type | Counties | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Cochise County (Willcox) | Hancock County | St. Joseph County (Constantine) | Perry County | Coos County (Union 58) | Douglas Co. (South Umpqua) | Lawrence Co. (Lead-Deadwood) | Jefferson County (Quilcene) | Carbon County | U.S. Non-SMSA | Aggregate Change in 10 Communities |
| **Proprietors** | 8 | 4 | 4 | -9 | 6 | 1 | 1 | 3 | -1 | 3 | 1.8 |
| **Farm** | -7 | -2 | -7 | 23 | -23 | -16 | -6 | -23 | -5 | -9 | -12 |
| **Non-farm** | 16 | 24 | 13 | 22 | 13 | 12 | 4 | 13 | 1 | 9 | 13.1 |
| **Wage & Salary** | 11 | 195 | 7 | 8 | 1 | 25 | 5 | 15 | 29 | 9 | 32 |
| **Farm** | 0 | -35 | -7 | -12 | -25 | -14 | -11 | 0 | -17 | -9 | -13.4 |
| **Non-farm** | 12 | 232 | 7 | 9 | 1 | 25 | 5 | 16 | 35 | 9 | 38 |
| **Private non-farm** | 16 | 276 | 5 | 6 | 0 | 28 | 3 | 9 | 42 | 8 | 42 |
| **Manuf.** | 55 | 363 | -3 | 11 | -5 | 29 | 52 | -3 | 2 | -2 | 44 |
| **Mining** | - | - | - | - | - | -31 | - | - | 216 | 2 | - |
| **Construction** | 95 | 98 | -12 | - | -33 | 78 | 34 | 9 | 143 | 13 | 51 |
| **Transportation** | 3 | 238 | 19 | -49 | -6 | 14 | 14 | 8 | 6 | 6 | 27 |
| **Trade** | 21 | 23 | 30 | -5 | 11 | 27 | -1 | 18 | 30 | 15 | 17 |
| **Finance** | -8 | 158 | 18 | 95 | 30 | 14 | - | 54 | 29 | 21 | 48 |
| **Services** | -11 | 47 | 18 | 2 | 17 | 30 | 16 | 33 | 15 | 15 | 18.7 |
| **Other** | - | - | - | - | - | -13 | - | - | 15 | 15 | - |

---

*U.S. Department of Commerce, Bureau of Economic Analysis

## TABLE 7
## FARM INCOME--CASH RECEIPTS FROM FARM MARKETINGS*
(in million $)

| Year | Million $ | |
|---|---|---|
| | All Crops | All Livestock & Products |
| 1950 | 12,356 | 16,105 |
| 1960 | 15,308 | 18,946 |
| 1965 | 17,392 | 21,958 |
| 1969 | 19,541 | 28,602 |
| 1970 | 20,907 | 29,615 |
| 1971 | 22,609 | 30,459 |

---

*Statistical Abstract of the United States, p. 597.

## TABLE 8
## DIRECT GOVERNMENT PAYMENTS TO FARMS*

| Year | Total (Million $) |
|---|---|
| 1960 | 702 |
| 1965 | 2,463 |
| 1967 | 3,079 |
| 1968 | 3,462 |
| 1969 | 3,794 |
| 1970 | 3,717 |
| 1971 | 3,145 |
| 1972 | 3,961 |

---

*Statistical Abstract of the United States, p. 596.

category, the aggregate percentage changes in the sites are greater than the percentage changes in employment categories for rural America as a whole. The 10 communities as a group are not atypical rural communities in terms of their shifting labor patterns; rather, these aggregate figures reflect more fluctuation and combination of extremes than any national rural data. Aside from the category of farming, which is discussed elsewhere in this chapter, the most interesting comparison is that of the manufacturing category. While employment in manufacturing decreased by 2% for the total U.S. rural labor force, it increased by 44% for the labor force in the 10 communities. Note that if it were not for the large increase in industry in Hancock County and Carbon County, the figures for the 10 communities would not depart so radically from those of rural America. Nevertheless, these figures would still show greater increase in employment in manufacturing in the 10 communities than the national increase. Besides manufacturing, the largest gap between rural America and the 10 communities is in the construction industry.

One other important aspect of the rural economy is retail trade. As has been noted, the growth in the highway system has made population centers more accessible to the rural population for shopping. The local merchant in a rural town no longer controls the same market or enjoys the same advantages of his location. Nevertheless, as seen in Table 9, retail sales outside SMSAs have grown rapidly between 1948 and 1967. It is important to note, however, that even though the rapid growth in the number of multi-unit retail establishments has enabled the volume of rural retail sales to expand, the small rural merchant, with his higher overhead and smaller variety of stock, has suffered.

In sum, the developmental picture of rural America through 1970 is as follows: Population growth, while steady, has not kept pace with the U.S. as a whole. The economic base through 1970 has been sufficient to support an existing, although not an expanding, rural population. The nature of the economic base of these communities has undergone radical changes during the past 30 years. The agricultural sector does not dominate the rural economy the way it has in the past, and even where agriculture remains strong, farm organization has changed. Finally, the economic base of rural areas, especially rural non-farm areas, is no longer so distinct from that of urban areas. The growth of manufacturing and office jobs

TABLE 9

## NUMBER OF ESTABLISHMENTS AND SALES-RETAIL TRADE*

| RETAIL TRADE | YEAR | | | | |
|---|---|---|---|---|---|
| | 1948 | 1954 | 1958 | 1963 | 1967 |
| # Multi-unit Establishments (In 1000's) | 163 | 167 | 183 | 220 | 220 |
| Total # Establishments (In 1000's) | 1,770 | 1,722 | 1,795 | 1,708 | 1,763 |
| Sales: (Million $) | | | | | |
| - Inside SMSA's | 80,899 | 169,968 | 133,038 | 169,810 | 221,373 |
| - Outside SMSA's | 49,622 | | 67,327 | 74,392 | 88,838 |

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*Statistical Abstract of the United States, p. 740.

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in rural areas has caused rural communities to value most of the same skills as do the more urban economies. In terms of trade, rural areas are not as isolated from urban areas as they once were. This has caused some decline in local business opportunities, since rural residents are, for the most part, able to shop at larger multi-unit establishments where selection is greater and prices are often lower.

Although the 10 communities are comparable to this developmental description of the economy of rural America, they show some slight differences in recent industrial development. For example, they show a stronger trend toward manufacturing and construction than does rural America in general. Although many of the 10 communities have always had a moderate amount of farming, they do not represent "agribusiness" in any major form. Some, such as Willcox, are characterized by the large modern ranch/farm of the mid-twentieth century where much of the operation is extremely mechanized. Nevertheless, none of the communities represents an area that is totally dependent on farming in the way that some communities (in Iowa or Kansas, for example) are.

There is a trend among the 10 communities, as a group, away from traditional rural types of work such as farming, logging, ranching, and an increase in manufacturing and related work. Although these traditional types of rural work are not totally eliminated, many of the 10 communities parallel national statistics in this area. For example, although Hancock County was formerly an almost totally agrarian community consisting of hill farms and plantations, it has recently been especially aggressive in pursuing manufacturing industries as a means of raising the dollar level of its economic base. Perry County, which has attracted plywood and other wood products manufacturing, but which continues to support substantial logging due to the abundance of timber, is a good example of a community in transition. Both traditional logging and newer manufacturing industries are likely to exist there, inextricably linked, for the predictable future.

In several of the 10 communities, such as Quilcene and Craig, this trend toward a more urban, industrialized way of life is not occurring. These are the most isolated communities, and each of them is in some way almost inaccessible from the nearest major population centers. Their inaccessibility, especially that of Quilcene and Craig, causes them to lag economically behind rural America; i.e., they are still most dependent upon traditional forms of rural work such as logging and fishing. In these communities, however, the small merchant still maintains his business, since these residents do not have the opportunity to shop at population centers as do the residents in the other seven communities or in much of the remainder of rural America.

One other aspect of the 10 communities which seems quite prominent in relation to rural America is mining. Lead-Deadwood is almost totally dependent upon the mining for its economic existence, whereas the trend in rural America is for communities to become increasingly diversified economically. Carbon County has a flourishing mining industry; in the other communities, mining is a declining rather than a growing industry.

## Transportation

The changing mode of transportation for the U.S. population as a whole has had considerable effect on rural lifestyles and on the viability of rural communities. The most important changes have been the growing use of automobiles and trucks and an expanding network of highways. There has been a corresponding decline in the use and importance of railroads. As a result of these trends, rural towns which grew up around the railroads have in general declined and those towns located near major highways have in general prospered. However, as described in Chapter XII, the impact of changes in transportation is much broader, and affects almost every aspect of life in almost every rural community.

The importance of trends in transportation to rural America is noted in a report of the Economic Research Service of the U.S. Department of Agriculture called Rural People in the American Economy:

> Largely as a result of the automobile revolution, the rural community has been greatly changed. Rural areas of the country are much less isolated within themselves, and the size of the central community made possible by the wider daily mobility has increased substantially. The rural community of today typically consists of several counties. While smaller subcenters are still found to fulfill some daily shopping and service needs, these tend to be spaced farther apart than formerly, are larger, and generally keep up to date in retailing

> and other practices.... People who formerly would have had to live in town for work reasons are choosing to commute, living beyond the built-up areas and becoming increasingly interspersed with the farm population.

The growing presence of non-farm persons in rural America may be directly related to the increased mobility of the individual by automobile travel. Moreover, the auto and the highway may have been instrumental in maintaining the relative stability of rural communities despite national trends toward urbanization, consolidation and centralization.

Table 10 shows the increase of rural highway mileage from 1940-1971. Note particularly that the main growth has taken place in the federal highway system and that surfaced mileage has increased. The highway system has expanded to provide more people in rural places greater access to the opportunities and facilities necessary for an improved quality of life. Access to shopping, recreation, health care and employment centers not only determines the character of rural life, but also determines whether rural life can be a reality for those who desire to live it.

One result of the changes in transportation patterns which is especially important for the study of ES sites is the issue of school busing. Without road and vehicle improvements, consolidation of school systems would have been slowed in some places and impossible in others. From the beginning of the twentieth century through the 1960s, the school year, schedule, and the size of the school district have been determined in large part by factors which relate directly to transportation; i.e., the condition of the roads (for example, some school schedules are still affected by impassable roads during the spring thaw) and the ability of the local community to finance school transportation.

Increased use of motor vehicles has kept pace with the expanded highway network. Table 11 presents information on the vehicle miles traveled by passenger vehicles and trucks from 1940 to 1970. Increased mobility in rural areas is quite clear. The number of passenger vehicle miles in 1970 is 260% greater than that in 1940. Even sharper is the 330% increase in truck vehicle miles.

The decline of rail service is another factor in the changing patterns of rural transportation in the twentieth century. Eldridge in "How Communities Can Cut Costs by Changing Size"(1971) points out that the decline in rail service has lessened the attractiveness of retail offerings. This

## TABLE 10

## RURAL HIGHWAY MILEAGE*
(In 1000 Miles)

| MILEAGE CATEGORY | YEAR | | | | | | |
|---|---|---|---|---|---|---|---|
| | 1940 | 1950 | 1955 | 1960 | 1965 | 1967 | 1968 |
| Total Rural Highway Mileage | 2,990 | 2,990 | 3,045 | 3,116 | 3,183 | 3,184 | 3,152 |
| Under Control Of | | | | | | | |
| State | 524 | 581 | 619 | 659 | 687 | 699 | 702 |
| Local | 2,466 | 2,326 | 2,333 | 2,345 | 2,346 | 2,321 | 2,275 |
| Federal | | 73 | 93 | 112 | 150 | 164 | 175 |
| Surfaced Mileage | 1,340 | 1,679 | NA | 2,165 | 2,302 | 2,336 | 2,362 |

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NA=Not Available
*Statistical Abstract of the United States, p. 540.

## TABLE 11

## MOTOR-VEHICLE TRAVEL BY TYPE OF VEHICLE*
(In Billions of Vehicle-Miles)

| VEHICLE | YEAR | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 1940 | 1950 | 1955 | 1960 | 1965 | 1968 | 1969 | 1970 |
| Passenger Vehicles | 252.3 | 367.7 | 492.0 | 592.4 | 716.4 | 819.0 | 863.9 | 906.0 |
| Trucks & Combinations | 49.9 | 90.6 | 111.4 | 126.4 | 171.4 | 196.7 | 206.7 | 214.7 |

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*Statistical Abstract of the United States, p. 545.

trend compounds the effect of the growth in motor vehicle transportation which has enabled rural consumers to patronize large, fairly distant retail centers (U.S. Department of Agriculture, A Good Life for More People, 1971, p. 245):

> As the rural consumer seeks wider selection in quality, price or style, he bypasses the "home town," driving to an area retail center as much as 50-60 miles away. No longer does the retailer in the small town have his "captive customers." This increasing retail leakage from the small town has caused many towns to disappear in a functional retail sense.... The growing tendency of major railroads to discontinue low-volume lines also is penalizing the small community. Rail service is gone from many small towns, and more will lose it. This often raises costs for local merchants, making them even less competitive in relation to the larger central city businesses.

Table 12 presents data on the operation of railroads from 1940-1971. Of particular relevance to the problems of rural America is the sharp decrease in non-commutation passenger miles. Motor vehicles did not simply replace trains as the method of transportation in places where railroad service declined. Different towns were favored by the different modes of transportation. Moreover, railroad and motor vehicle transportation are not directly substitutable--each has its own costs and characteristics.

As they developed through the 1960s, the 10 communities gave many indications of being typical of national transportation trends. Some, such as Union 58, were adversely affected economically by poor roads and heavy dependence on a failing railroad. Hancock County, on the other hand, has many of the characteristics of a thriving rural community. It is only 90 miles from the population center of Louisville and linked to it by a major though inadequate highway. Its residents are increasingly categorized as rural non-farm. Through industrial development bonds

## TABLE 12
## RAILROADS: SUMMARY STATISTICS*

| Railroad Travel | Year<br>1940 | <br>1950 | <br>1960 | <br>1965 | <br>1969 | <br>1970 | <br>1971 |
|---|---|---|---|---|---|---|---|
| Mileage of Track Operated: | 405,975 | 398,380 | 381,745 | 370,636 | 364,915 | 360,330 | 359,190 |
| Passengers Carried (millions) | 456 | 488 | 327 | 306 | 302 | 289 | 276 |
| Passenger Miles (millions) | | | | | | | |
| Commutation | 3,997 | 4,990 | 4,197 | 4,128 | 4,566 | 4,592 | 4,495 |
| Coach | 12,485 | 17,443 | 13,422 | 11,069 | 6,601 | 5,414 | 3,887 |
| Parlor & Sleeping Car | 7,288 | 9,338 | 3,643 | 2,191 | 1,021 | 765 | 516 |
| Revenue-Tons Freight Service Originated | 1,069 | 1,421 | 1,301 | 1,479 | 1,558 | 1,572 | 1,479 |

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*Statistical Abstract of the United States, p. 557.

the community has been able to attract new industry; it also contains a growing number of residents who prefer to live in a rural area but who commute relatively long distances to jobs outside the community. The remaining eight communities range from the almost inaccessible ones like Quilcene and Craig, to communities like Constantine and Willcox where more consumer services and a more diversified lifestyle reflect the fact that although distances between population centers are significant, access to transportation is greater.

## A Current Comparison of the 10 Communities with Rural Communities Across the U.S.

This section compares the 10 sites with data from rural America in the 1970s in terms of demographics, employment and economic base information, and education. The data in Tables 13-22 are for the counties in which the 10 school districts are located. In these tables, figures for non-SMSA counties are treated as figures for rural counties.

### Demographics

Throughout much of the twentieth century, population growth in rural American has not kept pace with that of urban and suburban America. This may be changing, however, in the 1970s. The total U.S. population has been growing much less rapidly in the 1970s than previously. The total U.S. SMSA population has been growing less rapidly as well. While non-SMSA (or rural) counties have grown at a slightly slower pace than previously, the growth of U.S. urban and total population has slowed to the extent that in the early 1970s, rural population was growing at a slightly greater rate than urban population.

Table 13 presents population figures for the total U.S., SMSA, non-SMSA and the 10 counties in which the rural communities are located for the years 1959, 1969, 1970, and 1972. Table 14 gives the growth rates for these categories for the years 1959-1969 and 1970-1972 by dividing the more recent population by earlier population figures for each category. During the 10-year period preceding the 1970s, urban and total U.S. population grew at a much greater rate than the rural U.S. population

## TABLE 13
## U.S. POPULATION IN SMSA, NON-SMSA AND THE TEN RURAL COUNTIES[*]
(in thousands)

| Year | Population | | | |
|---|---|---|---|---|
| | Total U.S. | Total SMSA | Total Non-SMSA | Ten Rural Counties |
| 1959 | 177,124.0 | 125,818.6 | 51,305.4 | 254.0 |
| 1969 | 201,298.0 | 147,298.3 | 53,999.7 | 268.4 |
| 1970 | 203,857.9 | 149,450.7 | 54,407.1 | 276.5 |
| 1972 | 208,223.4 | 152,309.4 | 55,914.0 | 289.9 |

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[*] U.S. Department of Commerce, Bureau of Economic Analysis

## TABLE 14
## GROWTH RATE IN U.S. POPULATION IN SMSA, NON-SMSA, AND IN THE TEN RURAL COUNTIES*

| Years | Population | | | |
|---|---|---|---|---|
| | Total U.S. | Total SMSA | Total Non-SMSA | Ten Rural Counties |
| 1959-1969 | 1.13 | 1.17 | 1.05 | 1.06 |
| 1970-1972 | 1.02 | 1.02 | 1.03 | 1.05 |

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*Source: Computed from Table 13

or the 10 rural counties in which the communities of this study are located. In the most recent years for which data are available, however, the total U.S. and urban population has grown by 2%. The rural U.S. population during that same period has grown by 3% while the 10 counties have grown by 5%, or at a 2% greater rate than rural America as a whole.

Table 15 presents population figures for the years 1970, 1971 and 1972 for the counties which include the 10 rural school districts. Table 16 shows the individual growth rates for each of the 10 counties.[1] Although five of the 10 counties lost population during the 1970s, the remaining five gained population in such substantial amounts as to far exceed the U.S. total and U.S. rural population growth rate.

## Employment and Economic Base Information[2]

Table 17 shows the per capita income for the total non-SMSA (or rural) U.S. population as well as per capita income for the counties which include the 10 school districts for the period 1950-1972. In 1972 only three of the counties representing the 10 communities were below the rural American average for per capita income. In Hancock County, where there has been a lot of industrialization in the recent past, the per capita income was still one of the lowest of all 10 counties and was slightly below the national rural average in 1972. Table 18 shows the growth rates in per capita income of U.S. non-SMSAs and of the 10 counties from 1950-1972. Note that Hancock County's growth rate in per capita income far exceeds that of any other county and is approximately twice the national rural average, despite the fact that actual per capita income was slightly below that of the national rural average in 1972. According to the data, the 10 counties tend to be below the national rural average in growth of per capita income in the recent past, despite the fact that actual

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[1] The aggregate population of all 10 counties for the years 1959, 1969, 1970 and 1972 provided the information for Tables 13 and 14.

[2] Data for comparison in this section are from the federal Bureau of Economic Analysis, Department of Commerce and from a special study conducted by Abt Associates Inc. which uses information on the ES program applicants and 1970 Bureau of Census data.

## TABLE 15
## POPULATION OF U.S. NON-SMSA AND THE TEN RURAL COUNTIES 1970-1972*
(in thousands)

| County | 1970 | 1971 | 1972 |
|---|---|---|---|
| Prince of Wales, Alaska (Craig) | 2.1 | 2.0 | 1.9 |
| Cochise Co., Arizona (Willcox) | 62.6 | 65.8 | 69.3 |
| Hancock County, Kentucky | 7.1 | 7.3 | 6.8 |
| St. Joseph Co., Michigan (Constantine) | 47.5 | 48.0 | 49.1 |
| Perry County, Mississippi | 9.1 | 9.2 | 9.0 |
| Coos Co., N.H. (Union 58) | 34.5 | 34.1 | 34.0 |
| Douglas Co., Oregon (South Umpqua) | 72.1 | 73.9 | 76.8 |
| Lawrence Co., South Dakota (Lead-Deadwood) | 17.4 | 17.6 | 17.6 |
| Jefferson Co., Washington (Quilcene) | 10.7 | 10.5 | 10.5 |
| Carbon County, Wyoming | 13.4 | 14.0 | 14.9 |
| Total U.S. Non-SMSA | 54,407.1 | 55,199.9 | 55,914.0 |

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*U.S. Department of Commerce, Bureau of Economic Analysis.

## TABLE 16
## GROWTH RATES IN POPULATION OF THE TEN RURAL COUNTIES AND U.S. NON-SMSA 1970-1972*

| County | Growth Rate |
|---|---|
| Prince of Wales, Alaska (Craig) | 0.90 |
| Cochise Co., Arizona (Willcox) | 1.10 |
| Hancock Co., Kentucky | 0.96 |
| St. Joseph Co., Michigan (Constantine) | 1.03 |
| Perry Co., Mississippi | 0.98 |
| Coos Co., N.H. (Union 58) | 0.99 |
| Douglas Co., Oregon (South Umpqua) | 1.06 |
| Lawrence Co., South Dakota (Lead-Deadwood) | 1.01 |
| Jefferson Co., Washington (Quilcene) | 0.98 |
| Carbon County, Wyoming | 1.11 |
| Total U.S. Non-SMSA | 1.03 |

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*Computed from Table 15.

## TABLE 17

## PER CAPITA INCOME: NON-SMSA AND THE TEN RURAL COUNTIES

(in dollars)

| County | Year | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1950 | 1959 | 1962 | 1965 | 1967 | 1968 | 1969 | 1970 | 1971 | 1972 |
| Prince of Wales, Alaska (Craig) | - | - | - | - | - | - | $5067 | $5764 | $6406 | $7470 |
| Cochise Co., Arizona (Willcox) | $1266 | $2095 | $2328 | $2462 | $2821 | $3460 | $3419 | $3462 | $3870 | $4017 |
| Hancock County, Ky. | $ 537 | $1090 | $1218 | $1367 | $1716 | $1968 | $2568 | $2756 | $2852 | $3334 |
| St. Joseph Co., Mich. (Constantine) | $1394 | $2059 | $2260 | $2713 | $2983 | $3196 | $3612 | $3743 | $3888 | $4265 |
| Perry County, Miss. | $ 565 | $ 939 | $1081 | $1202 | $1336 | $1569 | $1720 | $1803 | $1899 | $2227 |
| Coos Co., N.H. (Union 58) | $1199 | $1767 | $1789 | $2105 | $2565 | $2732 | $2839 | $3022 | $3291 | $3621 |
| Douglas Co., Oregon (South Umpqua) | $1545 | $1831 | $2122 | $2415 | $2610 | $2850 | $3387 | $3402 | $3678 | $3988 |
| Lawrence Co., S. Dakota (Lead-Deadwood) | $1311 | $1918 | $2121 | $2386 | $2611 | $2767 | $2897 | $2937 | $3249 | $3449 |
| Jefferson Co., Wash. (Quilcene) | $1612 | $1869 | $2032 | $2371 | $2438 | $2912 | $3060 | $3210 | $5541 | $3838 |
| Carbon County, Wyo. | $2022 | $2654 | $2706 | $2570 | $3121 | $3408 | $3798 | $4246 | $4303 | $4794 |
| Total- 1950, 1972 | $11,451 | - | - | - | - | - | - | - | - | $33,533 |
| U.S. Non-SMSA | $1064 | $1571 | $1765 | $2112 | $2455 | $2640 | $2880 | $3106 | $3282 | $3580 |

*U.S. Department of Commerce, Bureau of Economic Analysis.

## TABLE 18
## GROWTH RATE IN PER CAPITA INCOME, NON-SMSA AND THE TEN RURAL COUNTIES, 1950-1972*

| County | Growth Rate |
|---|---|
| Prince of Wales, Alaska (Craig) | - |
| Cochise Co., Arizona (Willcox) | 3.17 |
| Hancock Co., Kentucky | 6.21 |
| St. Joseph Co., Michigan (Constantine) | 3.06 |
| Perry County, Mississippi | 3.94 |
| Coos Co., N.H. (Union 58) | 3.02 |
| Douglas Co., Oregon (South Umpqua) | 2.58 |
| Lawrence Co., South Dakota (Lead-Deadwood) | 2.63 |
| Jefferson Co., Washington (Quilcene) | 2.38 |
| Carbon County, Wyoming | 2.93 |
| Total Average Growth Rate for the Ten Rural Counties | 3.37 |
| U.S. Non-SMSA | 3.37 |

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*Computed from Table 17

per capita income is above the national average. The pace of accelerated growth would be difficult to achieve and maintain over a 22-year period. Thus, a higher than average per capita income produces a slower growth rate. Hancock County's situation is just the opposite, however; accelerated growth in per capita income can be maintained more successfully when the actual per capita income is below average.

Table 19 shows personal income in millions of dollars for the U.S. non-SMSAs and for the counties representing the 10 rural school districts for the period 1950-1972. Table 20 shows the growth rates of the 10 counties and for rural America for this same period. Again, note the spectacular growth rate in personal income for Hancock County, as well as the almost equally impressive one in Cochise County in which Willcox is located. Overall, the 10 counties showed the exact same growth rate in personal income as did rural America. Four counties (Carbon, Coos, Lawrence and Jefferson) were well below the national rural average income growth rate.

Table 21 shows the distribution of persons in various employment categories in rural America as well as in the counties in which the 10 sites are located for the year 1972. Employment figures for Lawrence and Carbon Counties, where many people are employed in the mining industry, are affected by the fact that mining industry statistics are unavailable because these companies are easily identified in small communities.

Table 22 shows farm income for U.S. non-SMSAs and for the counties in which the 10 communities are located. Although rural America has shown a growing farm income for every year during this period, the 10 counties have not. Seven counties for the school districts of Constantine, Carbon County, Union 58, South Umpqua, Quilcene, Hancock County and Willcox showed a decline in aggregate farm income between the years 1965 and 1968. In each case, succeeding years show slight increases in income but the increase may only be indicative of the devalued dollar rather than increased real income. If this is so, farm income in the 10 counties may have begun to decline in 1965 and may be continuing to do so.

## TABLE 19
### TOTAL PERSONAL INCOME: NON-SMSA AND THE TEN RURAL COUNTIES, 1950-1972[*]
(in millions)

| County | Year | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1950 | 1959 | 1962 | 1965 | 1967 | 1968 | 1969 | 1970 | 1971 | 1972 |
| Prince of Wales Alaska (Craig) | - | - | - | - | - | - | 10.5 | 12.2 | 12.8 | 14.2 |
| Cochise Co., Arizona (Willcox) | 40.2 | 111.6 | 125.0 | 138.6 | 163.6 | 203.5 | 206.9 | 216.7 | 254.6 | 278.4 |
| Hancock County, Ky. | 3.2 | 5.7 | 6.9 | 8.4 | 11.0 | 13.3 | 17.7 | 19.5 | 20.8 | 22.8 |
| St. Joseph Co., Mich. (Constantine) | 49.2 | 86.5 | 94.4 | 118.4 | 134.5 | 146.1 | 167.8 | 177.9 | 186.6 | 209.6 |
| Perry Co., Mississippi | 5.1 | 8.1 | 8.8 | 10.7 | 12.2 | 14.2 | 15.6 | 16.3 | 17.5 | 20.0 |
| Coos Co. N.H. (Union 58) | 43.0 | 64.5 | 65.3 | 72.6 | 89.1 | 93.9 | 97.6 | 104.2 | 112.2 | 12.3 |
| Douglas Co., Oregon (South Umpqua) | 18.0 | 17.5 | 20.5 | 22.9 | 26.4 | 29.9 | 34.0 | 36.3 | 38.6 | 41.8 |
| Lawrence Co., S. Dak. (Lead-Deadwood) | 21.9 | 32.1 | 36.4 | 40.5 | 43.7 | 48.9 | 50.9 | 51.2 | 57.2 | 60.6 |
| Jefferson Co., Wash. (Quilcene) | 88.6 | 126.3 | 135.0 | 171.8 | 174.0 | 198.1 | 215.3 | 231.5 | 261.7 | 294.7 |
| Carbon County, Wyo. | 31.8 | 38.4 | 38.9 | 36.4 | 39.4 | 43.6 | 49.8 | 57.0 | 60.2 | 71.2 |
| Total: 1950, 1972 | 301.0 | | | | | | | | | 1122.1 |
| U.S. Non-SMSA: | 53,621.6 | 80,595.3 | 93,100.3 | 113,115.1 | 130,694.0 | 142,075.2 | 155,500.8 | 169,018.9 | 181,142.3 | 200,505.0 |

[*] U.S. Department of Commerce, Bureau of Economic Analysis.

# TABLE 20
# GROWTH RATES IN PERSONAL INCOME
# NON-SMSA AND THE TEN RURAL COUNTIES, 1950-1972*

| County | Growth Rate |
|---|---|
| Prince of Wales, Alaska (Craig) | |
| Cochise Co., Arizona (Willcox) | 6.93 |
| Hancock, Co., Kentucky | 7.12 |
| St. Joseph Co., Mich. (Constantine) | 4.26 |
| Perry County, Miss. | 3.92 |
| Coos Co., N.H. (Union 58) | 2.86 |
| Douglas Co., Oregon (South Umpqua) | 2.32 |
| Lawrence Co., S. Dakota (Lead-Deadwood) | 2.76 |
| Jefferson, Washington (Quilcene) | 3.33 |
| Carbon County, Wyoming | 2.23 |
| Total Average Growth Rate for the Ten Rural Counties | 3.73 |
| U.S. Non-SMSA | 3.73 |

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*Computed from Table 20.

TABLE 21

EMPLOYMENT BY TYPE AND NUMBER:
NON-SMSA AND THE TEN RURAL COUNTIES, 1972*

| Type | County | | | | | | | | | | U.S. Non-SMSA |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Prince of Wales (Craig) | Cochise County (Willcox) | Hancock County | St. Joseph County (Constantine) | Perry County | Coos County (Union 58) | Douglas Co. (South Umpqua) | Lawrence Co. (Lead-Deadwood) | Jefferson County (Quilcene) | Carbon County | |
| Proprietors | NOT AVAILABLE | 2501 | 1018 | 3501 | 796 | 1988 | 644 | 939 | 4699 | 878 | 9,770,000 |
| Farm | | 791 | 752 | 1509 | 471 | 284 | 134 | 279 | 1439 | 243 | 3,068,000 |
| Non-farm | | 1710 | 266 | 1992 | 325 | 1704 | 510 | 714 | 3260 | 635 | 6,702,000 |
| Wage & Salary | | 25996 | 3242 | 17544 | 1506 | 12187 | 3084 | 5545 | 25729 | 6211 | 72,909,000 |
| Farm | | 815 | 101 | 211 | 58 | 49 | 65 | 47 | 226 | 405 | 1,151,000 |
| Non-farm | | 25181 | 3141 | 1733 | 1448 | 12138 | 3084 | 5545 | 25566 | 5806 | 7,258,000 |
| Pvt. non-farm | | 11243 | 2943 | 14599 | 1053 | 10129 | 2033 | 4558 | 20450 | 4549 | 61,779,000 |
| Manuf. | | 1693 | 2537 | 8421 | 582 | 4689 | 866 | 283 | 10566 | 400 | 19,039,000 |
| Mining | | - | - | - | - | - | - | - | 211 | 1007 | 627,000 |
| Construct. | | 554 | 109 | 562 | 11 | 392 | 101 | 251 | 1023 | 313 | 3,704,000 |
| Transport. | | 908 | 44 | 664 | 31 | 434 | 78 | 198 | 1061 | 661 | 4,516,000 |
| Trade | | 3244 | 114 | 2948 | 148 | 1898 | 409 | 976 | 4022 | 1225 | 15,828,000 |
| Finance | | 409 | 31 | 388 | 39 | 225 | 57 | - | 485 | 120 | 3,880,000 |
| Services | | 2552 | 87 | 1584 | 203 | 2448 | 501 | 876 | 2996 | 820 | 13,964,000 |
| Other | | - | - | - | - | - | - | - | 86 | 3 | 220,000 |

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*U.S. Department of Commerce, Bureau of Economic Analysis.

TABLE 22

FARM INCOME: NON-SMSA AND THE TEN RURAL COUNTIES, 1959-1972*

(in thousands)

| County | Year | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1959 | 1962 | 1965 | 1966 | 1967 | 1968 | 1969 | 1970 | 1971 | 1972 |
| Prince of Wales, Alaska (Craig) | --- NOT AVAILABLE --- | | | | | | | | | |
| Cochise Co., Arizona (Willcox) | 20900 | 25671 | 19987 | 21772 | 21994 | 9682 | 11945 | 11543 | 12731 | 15425 |
| Hancock Co., Kentucky | 2781 | 3295 | 4034 | 4188 | 4269 | 4260 | 4737 | 5274 | 5651 | 5947 |
| St. Joseph Co., Mich. (Constantine) | 12108 | 12587 | 15610 | 17841 | 16925 | 17566 | 18848 | 20088 | 19151 | 23122 |
| Perry County, Miss. | 2676 | 2766 | 3523 | 4159 | 4215 | 4548 | 5099 | 5099 | 5188 | 5651 |
| Coos Co., N.H. (Union 58) | 4133 | 3901 | 4597 | 5139 | 4882 | 4873 | 5089 | 5291 | 5187 | 5515 |
| Douglas Co., Oregon (South Umpqua) | 1406 | 1494 | 1137 | 1230 | 1150 | 1159 | 1172 | 1158 | 1239 | 1351 |
| Lawrence Co., S. Dakota (Lead-Deadwood) | 2887 | 3511 | 3634 | 4028 | 4330 | 4785 | 5028 | 4929 | 5399 | 6333 |
| Jefferson Co., Wash. (Quilcene) | 10174 | 9645 | 8876 | 10297 | 10465 | 8403 | 9295 | 8777 | 9134 | 9419 |
| Carbon County, Wyo. | 10557 | 11770 | 11130 | 14374 | 16478 | 9353 | 10047 | 11583 | 11701 | 15217 |
| U.S. Non-SMSA | 39,396,335 | 43.6 | 48.5 | 52.8 | 52.9 | 54.6 | 60.0 | 62.5 | 65.9 | 75.7 |

*U.S. Department of Commerce, Bureau of Economic Analysis.

Further documentation of the comparatively minor role of farming in the 10 communities may be seen in the special study information.[3] Table 23 shows the percentage of people in various employment categories in the 10 communities and in other comparable rural groups. Note that only 5.5% of the population of the 10 communities is employed in farming, as compared with 12% of the population of all ES applicant districts and 17.5% of the population of U. S. non-SMSAs. Also note that the 10 communities show higher percentages of the work force in skilled, semi-skilled and unskilled worker categories than do all other classifications of rural population. As a group, the 10 communities tend to be more industrialized and less agriculturally oriented than rural America in general.

Table 24 shows family income. When compared with other classifications of rural America, the 10 communities have fewer families in the lower income bracket and more families in the upper middle income bracket. Earnings from industry tend to be higher than earnings from farming, and the slightly higher income level corresponds to the more heavily industrialized nature of the communities. The All Rural classification in Table 25 includes rural communities within SMSAs where more families are at the upper end of the earnings scale (note Table 8, the $15,000 category). Because there are more families with higher income in the All Rural category, their average size may be smaller than that of families in non-SMSAs. Thus, although the 10 rural school districts have the lowest percentage of families below the poverty level, the small size of families in the All Rural category results in that group having the smallest percentage of individuals below the poverty level.

In sum, in the 1970s, the per capita income is slightly higher but its rate of growth is slightly lower in the 10 communities than in the rest of rural America. The growth rate of personal income for the 10 communities is the same as that of rural America. The 10 communities have slightly fewer families below the poverty level and slightly more families earning middle income rates than does rural America in general.

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[3] Data were collected through NIE and the 1970 Fourth Count Census on the 10 communities as school districts (all previous data in this section have been on the counties which included the school districts), the 319 rural school district applicants for the ES program, all rural school districts whether in or outside of the SMSA, and U.S. population as a whole.

## TABLE 23
## EMPLOYMENT BY LABOR CATEGORY*
(in percent)

| Labor Category | Population Classification | | | | |
|---|---|---|---|---|---|
| | 10 Rural ES School Districts | Applicant Rural Districts (319) | All Rural Non-SMSA Districts | All Rural Districts | Total U.S. Population |
| Professional | 10.2% | 10.4% | 9.0% | 9.8% | 19.8% |
| Farm | 5.5% | 12.0% | 17.5% | 15.1% | 3.1% |
| Skilled Labor | 17.8% | 14.3% | 12.4% | 13.0% | 13.8% |
| Semi-Skilled Labor | 23.1% | 20.1% | 16.9% | 17.5% | 17.6% |
| Unskilled Labor | 12.1% | 5.9% | 5.2% | 5.1% | 4.5% |
| Sales | 13.4% | 4.7% | 4.0% | 4.4% | 7.0% |
| Service | 11.3% | 13.3% | 12.3% | 12.2% | 11.7% |
| Managerial | 7.3% | 7.5% | 6.8% | 6.8% | 8.3% |
| Clerical | 8.8% | 11.4% | 9.5% | 10.6% | 18.0% |

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*NIE Information, Fourth Count Census Data, 1970.

### TABLE 24
### FAMILY INCOME[*]
### (in percent)

| Income Category | Population Classification | | | | |
|---|---|---|---|---|---|
| | 10 Rural ES School Districts | Applicant Rural Districts (319) | All Rural Non-SMSA Districts | All Rural Districts | Total U.S. Population |
| $0 - $3999 | 18.4% | 23.2% | 23.3% | 20.9% | 15.2% |
| $4000-$7999 | 29.4% | 30.5% | 29.6% | 27.9% | 23.6% |
| $8000-$14999 | 41.4% | 35.6% | 31.3% | 33.7% | 40.5% |
| $15000 & up | 10.8% | 10.8% | 9.8% | 12.1% | 20.6% |

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[*] NIE Information, Fourth Count Census Data, 1970.

## TABLE 25
## POVERTY LEVELS*

| Poverty Category | Population Classification | | | | |
|---|---|---|---|---|---|
| | 10 Rural ES School Districts | Applicant Rural Districts (319) | All Rural Non-SMSA Districts | All Rural Districts | Total U.S. Population |
| Percent of families below poverty level | 13.5 | 16.4 | 16.4 | 14.8 | 10.7 |
| Percent individuals below poverty level | 13.4 | 16.1 | 14.0 | 12.4 | 13.7 |

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* NIE Information, Fourth Count Census Data, 1970.

The 10 communities are atypical when compared with rural America in terms of farming and industrialization, particularly industrialization as it pertains to manufacturing. Farming plays a less significant role in the 10 communities than it does in rural American communities in general. Industrial employment, particularly manufacturing, plays a more prominent role in these communities than it does in rural America in general.

## Education

Table 26 shows the level of educational attainment of persons over the age of 25.[4] The 10 school districts show a slightly higher percentage of people who have completed at least 12th grade and a slightly lower percentage of people with less than a seventh grade education. In terms of post-secondary education, there is little difference between the 10 communities and rural America. In the case of these 10 school districts, solid mid-level educational attainment produces solid mid-level earnings. In addition, the 10 communities have a slightly greater percentage of people who have had vocational education than other rural American communities.

Table 27 shows the mean percent of pupil population for specific population classifications. The 10 communities have a slightly higher percentage of school population in public schools than all other classifications. Although they and other applicant districts are slightly higher than other rural classifications in the percentage of the total population in all schools, the 10 communities are typical of rural America in this respect. There is very little difference between the 10 communities and rural America for any of the variables in this table.

## Other Sectors[5]

This section compares other sectors of life in the 10 school districts with those in rural America.[6] The sectors discussed are welfare, communications, housing and family life.

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[4] Based upon the Abt Associates special study through 1970 Census data.

[5] The information for this section was obtained from 1970 Census data for counties in which the 10 school districts are located. Data for school districts, when available, are indicated by the initials SD.

[6] For purposes of this section, rural America is defined as all non-SMSA counties from which information was obtained in the 1970 Census.

## TABLE 26
## EDUCATIONAL ATTAINMENT OF PERSONS OVER AGE 25[*]
(in percent)

| Years of Schooling | 10 Rural ES School Districts | Applicant Rural Districts (319) | All Rural Non-SMSA Districts | All Rural Districts | Total U.S. Population |
|---|---|---|---|---|---|
| 0-6 | 9.8 | 14.2 | 13.5 | 12.3 | 11.2 |
| 7-11 | 43.3 | 41.5 | 42.7 | 41.4 | 36.6 |
| 12 | 31.9 | 29 | 28.9 | 30.3 | 31.1 |
| 1-3 College | 8.7 | 8.6 | 8.4 | 8.8 | 10.6 |
| 4 College | 3.5 | 4.1 | 3.8 | 4.2 | 10.7 |
| 5 or more College | 2.8 | 2.8 | 2.6 | 2.9 | |
| Vocational Education | 20.4 | 17.6 | 15.2 | 16.9 | 25.3 |

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[*] NIE Information, Fourth Count Census Data, 1970.

## TABLE 27
## MEAN PERCENT FOR SCHOOL DISTRICT GROUPS & U.S. POPULATION: PUPIL POPULATION*

| Variables | Population Classification | | | | |
|---|---|---|---|---|---|
| | 10 Rural ES School Districts | Applicant Rural Districts (319) | All Rural Non-SMSA Districts | All Rural Districts | Total U.S. Population |
| % of School Population in Public Schools | 96.4% | 95.8% | 90.4% | 90.0% | 87.6% |
| % of School Population in Parachial Schools | 2.0% | 2.7% | 2.7% | 3.5% | 8.8% |
| % of School Population in Private Schools | 1.6% | 1.4% | 1.2% | 1.6% | 3.6% |
| % of Total Population in College | 1.2% | 1.6% | 1.2% | 1.4% | 3.4% |
| % Total Population in All Schools | 26.5% | 26.7% | 22.9% | 23.3% | 29.3% |

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*NIE Information, Fourth Count Census Data, 1970.

Welfare. Table 28 shows selected variables in the welfare sector. The 10 school districts are fairly close to the rural mean in most of the items; for instance, in the percentage of families with a female head. Although there were 10% fewer persons below the poverty level in the 10 districts than in rural America, families below the poverty level received less income from either earnings or from standard statutory welfare grants. Whereas slightly fewer males 16 and older worked 50-52 weeks per year in the 10 districts, males 16 and older were employed in greater number, at least part-time, than their counterparts in rural America in general.

Communications. Table 29 shows the percentage of occupied units in the county with telephones and with at least one television receiver in 1970. In both cases, the 10 counties were slightly below the mean percent for rural America.

Housing. On most of the items in housing, the 10 sites are relatively typical of rural America. The one exception is that the median value for units with all plumbing facilities is 19% lower in the 10 school districts. The median value for property in the 10 school districts was $11,460 while the median value for property in rural America was $14,100 (see Table 30).

Family Life. The 10 sites are quite typical of rural America in six of the seven selected items in family life (see Table 31). There is never a deviation of more than 4%.

## Summary of Findings in this Section

The major findings concerning the 10 ES communities as compared with rural America in the 1970s are as follows:

- Rural population is growing at a slightly faster rate than urban population. The 10 communities, as a group, are growing at a slightly greater rate than rural America in general.
- Farming plays a much less important role in the 10 communities than it does in rural America. The 10 communities are more oriented toward manufacturing and construction than are other rural communities.

## TABLE 28

## WELFARE*

| Item | 10 Sites | Rural America | Deviation |
|---|---|---|---|
| Percent of families in SD in 1970 with female head | 7.0 | 7.4 | - 6 |
| Percent of persons below poverty level in county in 1970 | 16.4 | 18.2 | -10 |
| Percent of males 16 years and older by weeks worked in county: | | | |
| 50-52 weeks | 62.0 | 67.7 | - 8 |
| 27-49 weeks | 20.5 | 19.2 | + 7 |
| 26 weeks or less | 14.7 | 13.0 | +13 |
| Percent of families below poverty level receiving income by type in SD in 1970 | | | |
| Earnings | 52.6 | 63.8 | -18 |
| Social Security or RR Retirement | 28.5 | 35.7 | -20 |
| Public Assistance or Welfare | 12.8 | 17.2 | -26 |

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*1970 Census Data

## TABLE 29

## COMMUNICATIONS*

| Item | Percent | | |
|---|---|---|---|
| | 10 Counties | Rural America | Deviation |
| Percent of occupied units in county with telephone available in 1970 | 70.4 | 82.0 | -10 |
| Percent of occupied units in county with at least one TV receiver in 1970 | 85.3 | 94.5 | -10 |

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*1970 Census Data

## TABLE 30

## HOUSING*

| Item | 10 Sites | Rural America | Deviation |
|---|---|---|---|
| Percent of total units with all plumbing facilities in county in 1970 | 88.3% | 83.8% | +5% |
| Median value for units with all plumbing facilities in SD in 1970 | $11460 | $14100 | -19% |
| Median monthly contract rent for units with all plumbing facilities in SD in 1970 | $65.60 | $67 | -2% |
| Number of dwelling units per 100 persons in county in 1970 | 35.6 | 34.4 | +3% |

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*1970 Census Data

## TABLE 31

## FAMILY LIFE*

| Item | 10 Sites | Rural America | Deviation |
|---|---|---|---|
| Percent of families in SD in 1970 husban-wife families | 90% | 89.3% | +1% |
| Percent of persons 14 years and older in county in 1970 who were married | 64.8% | 67.6% | -4% |
| Percent of persons 14 years and older in county in 1970 who were single | 23.3% | 22.4% | +4% |
| Percent of persons 18 years or younger in SD in 1970 living with only one parent | 9.3% | 9.7% | -4% |
| Percent of persons 18 years or younger in SD in 1970 living with both parents | 86.4% | 85.6% | +1% |
| Percent of persons in households in county in 1970 who are primary individuals or non-relatives of head of household | 7.6% | 5.1% | +49% |
| Mean number of children in families per family in county in 1970 | 1.53 | 1.59 | -4% |

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* 1970 Census Data

- There are slightly fewer families below the poverty level in the 10 communities than in rural America.
- The 10 communities have a slightly larger group of people who have completed the 12th grade in school and a slightly smaller group who never went beyond the sixth grade than does rural America.

As a group the 10 communities seem quite representative of contemporary rural America, with the exception of a significantly different employment distribution and a slightly greater growth rate in population.

# APPENDICES

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## APPENDIX I

## The Experimental Schools Program

The historical context of the Experimental Schools Program was discussed in Chapter I. In that context the following concepts were seen as significant to the Experimental Schools Program:

- Piecemeal change does not work well. Therefore, the orientation of the ES program is toward holistic change. Not only must many aspects of the school system be included in the change activity, but the community must also be considered and involved.
- In the absence of better information about the change process, there is a strong inclination toward the development of "grounded theory"--an orientation which requires the development of the theory upward from data about the educational process.
- A systematic, comprehensive form of evaluation and documentation must be built into the projects. This is necessary for both the development of theory and for the development of future recommendations regarding educational planning, program, and policy.
- In order to be meaningful, the research and evaluation activities must be built into projects from the start and carried out longitudinally in "action settings."

Consideration of these points led the Experimental Schools program to set forth a number of policy positions regarding any experimental projects to be funded. These positions specify that:

- Political, economic, social and educational desires of the community must be represented in program plans;
- Programs must be willing to pursue change intensively over a five-year period;
- Guaranteed long-term financial support must be present;
- To assure importance of local commitment, the programs must compete for selection;
- To assure adequate support for implementation of changes, adequate financial support is needed from the federal government for all aspects of the projects: and,
- An unusually rigorous monitoring system must be implemented and sustained by the federal government.

With respect to the program conceptualization, it is necessary to ensure that changes be truly holistic; that is, the way in which the sum of all components of a program interact is somehow altered. The

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ES program creates a powerful incentive for communities to think in holistic terms. In this sense, the ES program becomes an intervention in the communities. Five points demonstrate this:

- A substantial but temporary five-year increment of the local budget requires planning for phaseout;
- All planning is on a five-year scale;
- Planning must: reflect a view of schooling as a total program (rather than a set of programs); involve integration of the vertical and horizontal aspects of school operation; and broaden the school concept to include social, political and cultural aspects of community;
- Evaluation and documentation must be present both in the local program and through outside agencies; and
- There must be consistent monitoring by NIE/ES itself.

Finally, with respect to individual projects the following represent three dimensions of the program orientation of the ES program:

- Meaningful understanding of the holistic change process should take place at the individual project level;
- Clarification of the value of specific educational programs should take place at the project level; and
- Good programs will be characterized as working in their own contexts, but it is recognized that generalizability of all facets of a program is unlikely, given the influence of the program context.

# APPENDIX II

## The Seven Studies

In addition to the site histories, the following seven kinds of study are part of the overall evaluation of the Experimental Schools program for small rural schools:

### Pupil Change Study

The Pupil Change Study is designed to assess and explain the perceived inequality of education as experienced by pupils attending small schools in rural areas. The findings should be useful in indicating type and scope of educational change that can be sponsored to allevaite such inequalities, should they exist. Specifically, the Pupil Change Study is designed to address three major policy questions about rural education in the United States:

(1) How can rural education be described in terms of its effects over time on pupils?

(2) Do changes in educational resource allocation result in changes in rural pupils' performances and attitudes?

(3) Do changes in a pupil's elementary and secondary school performance result in changes in her/his economic mobility, employment, and post-secondary education?

Statistics available to the Pupil Change Study are well suited to these questions. Information is available on approximately 25,000 pupils. Many of the data are longitudinal over a four year period and are not limited to achievement test performance, but cover a whole range of attitudinal and aspirational measures. Of special interest are data obtained from parents regarding expectations for their children and the schools serving them. Other Rural Project studies provide rich data about the school and community context within which these pupils live.

From previous research on the extent to which changes in school resources influence pupil performance, an optimist can conclude that we do not yet know enough. A pessimist can find ample justification for interpreting the research more negatively. Both can agree that schools influence pupils, but there is difficulty in understanding which components of the school affect pupils and how. Evidence suggests that rural schools have an especial potential for change due to their small size. Thus one might logically expect greater changes collected than are identified in urban and suburban settings. Pupil Change Study is unique when compared to other studies on school effectiveness because it is able to study utilization of some school resources on an individual basis. Most other studies have had to assume equal utilization of school resources by all pupils within the study's unit of analysis (either the school or the school district), and thus the conclusions are negatively biassed.

Previous research on the third issue indicates that rural pupils have lower rates of economic mobility, larger employability problems, and lower rates of entrance into post-secondary institutions. However, evidence for these conclusions is even scantier than for the earlier questions due to lack of rural pupil studies not only of a cross-sectional nature, but even more important, of a longitudinal nature as regards dropout rates, entrance into post-secondary educational institutions, first jobs, and succeeding employment positions. Demographic data in the census tells less about economic and social mobility patterns for rural youth than for any other group. The Pupil Change Study provides the first adequate look at rural youth along these dimensions. Follow-up efforts on graduates of the 10 schools have been designed to be compatible with another study currently funded by the federal government. Thus comparisons between rural and suburban/urban will be possible. As the 10 Experimental School districts have diverse economic and employment structures, the findings on post-schooling outcomes should have wide applicability.

A general understanding of pupil change processes seems implicit in the above questions even though emphasis is clearly on policy-relevant aspects of rural education. While there is continuing uneasiness that aggregate understanding of pupil change has stagnated at a low level in the last decade, this study by design, circumstance and mandate should improve general knowledge of this question. Without such understanding, estimation of total effect on rural schools, much less the Experimental Schools program, is jeopardized.

## Organizational Change Study

The Organizational Change Study provides vital information on whether, how, and why major changes occur in the organization and operation of the school districts. Recent studies of planned innovation have been made systematically across school districts. Many have been of an intended change which ultimately failed to occur; one can only hypothesize the circumstances under which an implementation might have worked. Change most likely occurs in the presence of two sets of circumstances. First, certain negative organizational characteristics are absent. In addition, certain positive characteristics are present. This project should finally answer a variety of questions.

The Organizational Change Study investigates educational groups (schools and school districts) as open socio-cultural systems in constant interaction with their environments. It focuses on:

- The system's components,
- The relationship of the system's components to each other and to the environment,
- How these affect the change process and the Experimental Schools outcomes,
- How these are affected by the Experimental Schools projects.

The 10 school districts under scrutiny are undergoing three different kinds of change. Rural school districts, like other contemporary school systems, are dynamic forces on the social scene responding to various stimuli in their internal and external environments. They do not stand still despite internal systematic resistance to change. These school districts have undertaken the Experimental Schools projects and, to varying degrees, other programs of planned change. Additional unplanned change takes place as part of the natural course of events.

The objectives of the Organizational Change Study are:

- to measure and describe rural schools and school districts,
- to measure, describe and explain change in rural school districts,
- to describe and explain the process of planned change in rural school districts.

Within this context a further objective is to deal with issues of:

- Deliberate change taking place in rural educational organizations,
- Those organizational characteristics which facilitate change and those which inhibit change.

The basic research questions of the Organizational Change Study can be summarized in the following five questions:

- What is the nature of rural schools and school districts?
- What is the nature of planned and unplanned change in rural school districts?
- What is the scope of the process of planned change?
- How do organizational properties affect the process of planned change?
- How does the process of planned change affect the nature of rural schools and school districts?

Each of these basic questions has a relevant strategy, methodology and data source.

The study's units of analysis are schools and school districts as social systems. Teachers, administrators, and on-site-researchers are asked to provide information about characteristics of their areas. These data are combined and aggregated to the system level. While teachers and administrators are principal information sources in this investigation, the Organizational Change Study is not a study of professional personnel *per se*, but of school and school district *organizations* undergoing a process of planned change.

Data from this study allow us to deal with several questions. Do specific organizations enhance innovation while others retard it? What roles do teachers, administrators, school boards and other actor groups take in implementing change? Is there a reasonably typical process by which changes are achieved (e.g., moving through stages of planning, implementation and institutionalization), or is the process an idiosyncratic one, dependent on local individual style, specific community problems, and the like? Do we find that rural schools may change under one general approach while other approaches seem less effective? Finally, can schools in the process of implementing changes both develop their skills in self-evaluation and maintain the innovative features which they have introduced? In short, how tractable are the improvements?

## Community Change Study

The Community Change Study has four general purposes. These are:

- To develop a conceptualization, definition, and approach to studying community, school system, and Experimental Schools projects;
- To develop understanding of how a rural community and its people, culture, and institutions both influence and are influenced by the school system and its pupils in the presence of the Experimental Schools program;
- To gain perspective on functions of rural education in the larger community;
- To derive information of value to policy makers, educators, and social scientists, regarding characteristics of education and the nature of community in the rural context.

A variety of specific questions are addressed:

- Was the ES program responsive to important educational and community needs?
- Did the ES project capitalize on existing school and community resources to achieve its objectives?
- Did certain unanticipated benefits and costs arise in connection with the project?
- Did the relationship between school and community change over time as a result of the project?
- What effects did the project seem to have on long-term viability of the school system and the community?

The Community Change Study seeks to understand ES from a larger point of view. From the community perspective various interactive questions must be considered. For example, did the dropout rate decline? Did students show a greater propensity to remain in the community? Were better jobs available to and filled by students? As community needs changed, did the schools adjust their curricula? From a slightly different perspective, what seemed to be the comparative merit of educational investment as a means of improving overall social and economic health? Precisely how did the school system with its ES program interact with other areas of the community to bring about is impacts? Answers to these questions are important for policy assessment questions pertaining to merits of investing in educational projects as a means of enhancing longer term rural community development in America. At stake is concern as to the viability of investing in education as a significant institution in rural communities.

## Case Studies

Specially tailored case studies complement the cross-site investigations conducted systematically in each community. These provide in-depth analysis of local process taking place over the five-year innovation period. Attention focuses on the how and why of individual site change. Readers can get a first-hand look at the context in which experiments are carried out, ways in which local communities tackle special problems, and the results. The objective of these documents is to convey to the reader what the change process is like. Topics include the nature of the communities and school systems, project goals, barriers to change, outcomes over time, and a general statement of "long-term" effects of these projects. Reading these documents will prove extremely useful to persons interested in how such experiments might work in other rural communities.

## Special Studies

Throughout the life of these projects there are likely to emerge many questions that suggest the need for special studies. Particular aspects of rural community life, as opposed to education *per se*, may be very important. For example, a community experiencing high out-migration among its youth may face special educational problems. Changes in the costs of various programs or equipment may be important to the rural school. The nature of consolidated school district problems may warrant special examination. Because of these diverse sets of concerns, small "special studies" are occasionally conducted to augment the larger studies which have been described.

## A Summative Evaluation

A summative evaluation of the overall Small Schools Serving Rural Areas projects pulls together information from the three cross-site studies, the case studies, and information on the individual districts' yearly progress of the achievement of their objectives.

The study addresses questions of the projects' relevance to student, school, and community needs as well as the efficiency and effectiveness of these efforts.

This evaluation examines, after the fact, the extent to which the projects addressed important needs, the nature of the planning process, the development of program operations, the effects upon students and the school system, and the impacts of the program. The long-term objective of this phase of study is to improve understanding of how other school systems might embark on their own programs of comprehensive educational change. To do this, the study employs an evaluation "logic" which examines what a school wants, what it is, what happens, and why. In this manner, successful features can be adopted elsewhere and many pitfalls may be avoided.

## Policy, Program, and Research Implications

Finally, once the above questions are answered, their implications will be considered from a variety of perspectives. These include, for example, what contributes to effectiveness of schooling? What is the nature of rural education? What findings are of particular interest to educators in other rural communities. What is learned about effective educational research?

Basically, there are three major perspectives from which all such questions can be viewed. First is the concern of the educational practitioner (principal, teacher, counselor, or other educator) who wants information on how to develop better programs to educate American youth for a productive role in society. Second, state and federal agencies concerned with funding educational programs need to know what can be achieved and how. Third is the concern of the scholar who is interested in better understanding the processes and actual achievements of education.

Thus, the study findings will be carefully reviewed to determine what has been learned that can improve the knowledge of educators, policy makers, and scientists, and thus improve education in rural American school systems.

# APPENDIX III

## Background Descriptions of Key Project Staff

A critical factor in the overall success of this project is the presence of an "on-site" researcher at each of the 10 sites. As a group, these on-site researchers have excellent formal education for this type of work, considerable previous field experience in various cultural settings--particularly rural settings--and demonstrated capacity to work with people in rural communities.

### On-site researchers

ALLAN F. BURNS (Willcox, Arizona) completed his doctoral work in anthropology at the University of Washington. He has carried out extensive research in Yucatan, Mexico. His interests in socio-linguistics and ritual have provided the bases for papers delivered at regional and national anthropological conferences, as well as several publications.

CHARLES A. CLINTON (Hancock County, Kentucky) recently completed his doctoral work in anthropology at Washington State University. He has taught at three colleges and universities, conducted field research in Alaska on two different occasions, and has contributed four papers in various regional meetings of the American Anthropological Association. His major interests are in the areas of theories of complex societies, culture of the United States, cultural ecology, and adaptations in complex societies.

A. MICHAEL COLFER (Quilcene, Washington) has a Ph.D degree in anthropology from the University of Washington. He has taught at four universities, and has done field work in Oregon and Iran. His major interests are in kinship and social organization and in cultural ecology.

CAROL J. COLFER (Quilcene, Washington) has a doctoral degree in anthropology from the University of Washington. She has done field work in Oregon and Iran. Her major interests are in cognitive anthropology and in culture and personality.

WILLIAM L. DONNELLY (Constantine, Michigan) is currently a doctoral candidate in sociology at the Pennsylvania State University with major interests in political sociology, comparative sociology, and the sociology of education. He has taught and been a researcher at Pennsylvania State University, and is also the author of "Public welfare and migration" (Social Science Quarterly).

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SUSAN HALE FIRESTONE (Lead-Deadwood, South Dakota) holds a B.A. in anthropology from Antioch College. She has worked as a field supervisor at the National Opinion Research Center in Chicago and as a supervisor at the University of Chicago for a study on teachers' attitudes and activities.

WILLIAM A. FIRESTONE (Lead-Deadwood, South Dakota) received his doctorate in the sociology of education at the University of Chicago. He has taught at the University of Chicago and Roosevelt University, and is the author of "Community organizations and school reform: A case study," read at the convention of the Midwest Sociological Society in April, 1972, and published in School Review, November, 1972.

LAWRENCE HENNIGH (South Umpqua, Oregon) is currently a doctoral candidate in anthropology at Washington State University. He has taught at four colleges and universities and on four occasions presented papers at the annual meeting of the American Anthropological Association. He has, on two occasions, done field work in Alaska and has published four papers in professional journals, including "You have to be a good lawyer to be an Eskimo," in Alliance in Eskimo Society (University of Washington Press, 1972).

STEPHEN J. LANGDON (Craig, Alaska) is currently a doctoral candidate in anthropology at Stanford University. His research interests are in the areas of cultural ecology, economic anthropology, and educational anthropology. He attended high school in Anchorage, Alaska and worked there in educational programs which involved southeastern Alaskan students from 1967 through 1970.

DONALD A. MESSERSCHMIDT (Carbon County, Wyoming) holds a doctoral degree in social and cultural anthropology from the University of Oregon. He has done field work in northern Maine and in Nepal, and is the author of several articles on his findings, including the forthcoming "Innovation in adaptation: Tibetan immigrants in the United States." One of his major interests is socio-cultural change and innovation.

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## Abt Editorial Staff

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# APPENDIX IV

## Objective, Theoretical Framework and Application of the Site Histories

The study calls for the development of a document describing the history of each of the rural communities. The objective of the *Site History and Context Study* (SHS) is to provide a thorough understanding of what occurred in the community prior to the Experimental Schools Program, and to impart an understanding of the economic, social, psychological, cultural, and political context of the current-day community and its Experimental Schools Program. These data are considered important for a variety of study areas to provide a systematically established adequate baseline on each of the 10 small school sites.

Two major studies of education in the community (Coleman, 1961)[1] and Hollingshead, 1959)[2] support the need for an intensive community baseline study. These studies established the presence of a strong relationship between the characteristics of the community and what occurred in the lives of students. Had either of these studies failed to consider the background of the community in which the educational process took place, much of what occurred in students' lives and their educational patterns would have remained unexplained. More recently, the study sponsored by USOE, *Equality of Educational Opportunity*, and follow-up studies utilizing its data, further verified that areas of community life beyond the school are critical in their influence upon what takes place inside the school and in the educational achievement of students.

In a number of community studies which have been conducted, the review of a community's early settlement and history is an important part of the introductory remarks. These studies illustrate the range of

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[1] Coleman, J. S. The Adolescent Society. New York: The Free Press of Glencoe, 1961.

[2] Hollingshead, A. B. *Elmtown's Youth*. New York: John Wiley & Sons, Inc., 1949.

[3] Coleman, J. S., *et al*. *Equality of Educational Opportunity*. Washington, D. C.: U.S. Government Printing Office, 1966.

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data involved in developing a description of a community which conveys its idiosyncratic characteristics. These community studies include Middletown by the Lynds, and Small Town in Mass Society, by Vidich and Bensman. In addition, Warren's Studying Your Community provides many questions regarding a community's history, as well as a variety of specific areas of community life which are relevant to the AAI study (e.g., education, government, etc.). Finally, Stein's The Eclipse of the Community provides discussion of the very significant role played by community history as it influences current life and directions. From a slightly different perspective, works by Sanders[3] (The Community--Introduction to a Social System) and Inkeles[4] (studies of communities in various countries) point to external societal influences on a community--e.g., secularization, mechanization, industrialization, and commercialization--to which rural communities respond in very similar ways; i.e., not idiosyncratically as a function of their history of ethnicity. From a review of these sources, it is apparent that questions included in a "community history" should focus both on local conditions and events and on the influence of external factors (e.g., government, technologies, economic conditions, changing national values, etc.).

The development of the SHS is intended to provide for a variety of study needs, including:

- basic information to be utilized in the development of the individual site case studies included in the Site Specific Case Study Design;
- data which correspond to information being gathered for the Community Change Study which can be useful in later interpretation of trends over time;
- general supportive information for individual special studies to be conducted; and
- general information relating to the Pupil and Organization Change Studies, providing a "context" for their more explicit questions regarding students and the school system during the present five-year period.

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[3] Sanders, I. T. The Community. Introduction to a Social System. New York: Ronald Press, 1966.

[4] Inkeles, A. Industrial Man: The Relation of Status to Experience, Perception and Value. Am. J. Sociology: LXVI, 2, July, 1960.

## General Guidelines for Development of Site History and Context Study

The SHS should be thoroughly developed, documented as to source of facts, and written in a lively and lucid style to provide the reader with an extensive understanding of the development of the community and its school system. Important facts should be included with full bibliographic citations.

Information sources for the development of the SHS are many and varied. These include: public records--e.g., census, public school records, town records, county archives, surveyor's notes, and various state and regional documents--and privately owned records--e.g., the town library collections, newspapers, local historical documents, special studies, family histories and biographies, directories, maps, anniversary addresses, local church and fraternal records. Photographs are also useful, and older local residents may be an excellent source of information.

In addition to the informational purposes of the SHS, it should be developed with an awareness of its relevance for future analysis in the various studies as cited above, for it may shed light on why certain changes occurred, or failed to take place. Three books are provided to each on-site staff member as references for the study of communities. These are:

Warren, R. Studying your community. New York: Free Press, 1965.

Stein, M. The eclipse of community. Princeton, N. J. : Princeton University Press, 1960.

Vidich, A. & Bensman, J. Small town in mass society--class, power and religion in a rural community. Princeton, N. J.: Princeton University Press, 1968 (Rev. ed.).

Other relevant works cited above are also available to on-site staff members through the AAI library and libraries of Boston area universities.

To facilitate development of individual site histories, a general outline is provided. This outline is reasonably thorough, but can be modified according to local conditions and special considerations. In general, this outline reflects the kind of information sought out by professionals in studies of communities and the educational change process. It takes into account the overall community picture, external sources of influence, and a variety of special considerations (local geographic conditions, early history, major events, and the economic, social, psychological, cultural, political and educational aspects of community development).

It should be noted that for the purposes of developing this outline, the boundary of a community, as used here, denotes the general community in which the school system is operating. However, this definition can be modified, if necessary, to include segments of nearby communities. For example, if a rural school system recently began to serve students from a nearby community, and those students represent a small sector of the student body, a special section can be added to the SHS which contains relevant information for that community. The basic document, however, should be directed toward that community which is the dominant influence on the school system. Moreover, the communities of the 10 school systems in the AAI study may consist of an area which includes a town, several towns, or an entire county. This area served can be referred to as the "school life space," or the salient geographic area of families whose children attend the school. There is no simple formula for determining precisely what is the "life space" of school families.

## APPENDIX V

## Acknowledgments

### Craig, Alaska

This document has been prepared as part of the contract between the National Institute of Education and Abt Associates Inc. of Cambridge, Mass. to document and evaluate Craig, Alaska's Experimental Schools project. Other publications dealing specifically with the Craig Experimental Schools project will be available following the completion of the experiment.

The recollections of many individuals and their patience and understanding in relating them are the foundations of this work. I would like to express my deepest gratitude to the people of Craig who have aided this endeavor. If there are mistakes and/or misinterpretations, they are the responsibility of the author. I would like to give special appreciation to my friends "Grandpa" George Hamilton, Sr. and Mr. and Mrs. Bill Demmert, who have spent many long hours reliving the area's past with me. There are many, many others who have contributed, and I would like to mention some of them here: Mrs. Norma Anderson, Stan Bippus, Glen Charles, Gene Chelstad, Mrs. Margaret Demmert, Mr. and Mrs. Al Dennis, Cliff and Mike Douville, Mrs. Bonnie Douville, Jay Dilworth, Clyde Ferguson, Mrs. Elizabeth Gardiner, Mr. and Mrs. Fred Hamilton, Sr., Mr. and Mrs. Gordon James, Greg Johns, Fred Johnson, Mr. and Mrs. C. M. Jones, Frank Lauth, Mrs. Florence Mielke, Lester Nelson, Sr., John Patterson, Clarence Peele, Frank Peratrovich, Mrs. Helen Sanderson, Mrs. Marlene Sprague, Tex Yates and Mrs. Marge Young.

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The staff of Abt Associates, especially Peter Wolff, Steve Fitzsimmons and Mike Kane, have also contributed to the final document in various ways and I would like to thank them and others of the Cambridge staff who have assisted in its preparation.

Stephen J. Langdon
On-Site Researcher
Craig, Alaska

March, 1975

### Willcox, Arizona

The people of Willcox who have been so generous in helping me write this manuscript deserve more thanks than I can give them. This study is written in appreciation of them. Stephen Fitzsimmons and Peter Wolff of Abt Associates have been helpful and supportive of the research involved in creating the study. Although many school personnel, City of Willcox officials, and community residents of all ages and walks of life have provided many suggestions during the writing of the manuscript, I retain responsibility for its contents and interpretations.

Allan F. Burns
On-Site Researcher
Willcox, Arizona

March, 1975

### Constantine, Michigan

This report is partly based on earlier local histories, newspapers, and other historical records. But most important in the completion of this history was the assistance given by a large number of residents who generously gave their time, recounting past events from memory, and in some cases showing me their personal collections of memorabilia. Without that assistance, this report could not have been written. While I cannot list all those who helped in the completion of this report, I want especially to thank the following persons: Bernice Barnhart, Juanita Bower, Robert Churchill, Joseph Cox, Edna and Frederick Davenport, Suzanne Harmon, Dorothy Harvey, Robert Hotovy, Sr., Wayne Johnson, Anna Johanson, Gale Kline, Edward Krepel, Charles Lutz, Fava Oster, Madelyn Polleys, Kenneth Roberts, Elwood Russell, Harold Smith, Frank Tefft, Margaret Turk, Marvin Vercler, Fredrick Weir, Charles Wolgamood, Lewis Wittenberg, and the students and teachers of the Constantine Public Schools.

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William L. Donnelly
On-Site Researcher
Constantine, Michigan

March, 1975

## Perry County, Mississippi

In 1972 Abt Associates of Cambridge, Massachusetts, was awarded a contract by the National Institute of Education to conduct research in regard to the Institute's national Rural Experimental Schools Program. This history of Perry County, Mississippi, was prepared as part of that research.

A number of people in Perry County have contributed to the development of the history. Superintendent of Education William E. Powell supplied pertinent facts, suggested additional sources of information, and read drafts of the manuscript for errors. Other school people also gave me information and read drafts of the document. These included Mr. Maniel Cochran, Miss Annie Magee, Mrs. Flora McLeod, Mrs. Maxie McSwain, Mrs. Oscar Mixon, Mr. C. P. Moody, Mr. James Sheffield, Mr. Carl Shepherd, Miss Elizabeth Shoemake, and Mrs. Lynette Tingle. Their generous contribution in this is typical of that Perry County educators have given to the entire Abt Associates research effort and is appreciated.

N. D. Matthews, president of the Perry County Bank, guided me to many areas of the county I would not otherwise have seen. He contributed to my understanding of the geography, ecology, and economics of the county as well as introducing me to turkey-calling.

Dean Eric Gunn of the College of Education and Psychology and Dr. James McPhail, Chairman of the Department of Educational Administration and Supervision at the University of Southern Mississippi, have patiently answered my questions and verified facts concerning the governance of public education in Mississippi.

I have attempted as best I could to use accurate information in the preparation of this history. Because of time constraints on my work and limitations of sources of data, however, there will undoubtedly be some inaccuracies. I should note particularly that some of the information in the Works Projects Administration microfilm (U. S. Work Projects Administration, 1970) is anecdotal and, in some instances, is not independently corroborated. I did attempt to check Perry County anecdotes against general histories of Mississippi, such as Bettersworth, 1959, for consistency.

Also, I had to use secondary source material more than I ordinarily would. Finally, please recall the likelihood of some error inherent in U.S. Census information.

C. Thompson Wacaster
On-Site Researcher,
Perry County, Mississippi

August 20, 1974

Supervisory Union 58, New Hampshire

The following people were most helpful in the preparation of this report. They are Warren Bouchard, Gordon Flight, Roger Goodson, Pops Langley, Thomas Monahan, Mary Nugent, Alan Rich, and Florence Tilton. I would like also to thank Mary Ann Govin for preparing the manuscript for me. Any errors of fact or interpretation are solely mine.

Charles Stannard
On-Site Researcher
Groveton, New Hampshire

March, 1975

South Umpqua, Oregon

I wish to express my deep and sincere gratitude to the people of South Umpqua, who so generously gave of their time in providing much of the information which made this brief history possible. Research was usually carried out in their homes and a request for information was often quickly followed by the ferreting out of family albums, old letters, obscure documents, and the loan of irreplaceable books. I apologize for not being able to mention the many specific individuals and the data they provided.

Special thanks are given here to Lawrence Boyle, Darrel Carter, Pearl Lawson, Magdalene Nichols, Pete Ulam, Rose Whisenant, whose contributions were those of active participants in community development during the twentieth century. My appreciation for careful proofreading of the manuscript goes to Lawrence Boyle and Pearl Lawson, both of pioneer stock, Doyle McCaslin, vice superintendent of the South Umpqua School District, and Lavola Bakken, local historian. Thanks are due also to Hal and Portia Schiltz, and to Robert and Sharon Scherer, who succeeded the Schiltzes as owners of the Myrtle Creek Mail, for the use of their professional archives, and to Barbara Coyle, of the Riddle branch of the Douglas County Library, and to George Abdill, curator of the Douglas County Museum, for his special efforts in obtaining historical documents and photographs.

Lawrence Hennigh
On-Site Researcher
Riddle, Oregon

March, 1975

## Lead-Deadwood, South Dakota

Thanks are due to the many members of the Lead-Deadwood School District and the staffs of the Deadwood and Lead public libraries, who provided us with so much useful information in both written and oral form, as well as to Dr. David Miller, Black Hills State College Social Science Department, who helped us with part of the data collection. Peter Wolff and Abby Freedman of Abt Associates, Cambridge, Massachusetts provided editorial assistance. Early drafts of different chapters were read by Glenn Hogan, Superintendent of the Lead-Deadwood School District; Rev. Ronald Hennies, Board Member; Mr. William Burke, Principal; and Dennis Dutton, teacher as well as S. Cushman Clark and Wynnifred Lindstorm, and they all provided useful suggestions. Still, the blame for any inaccuracies or misinterpretations must rest with us.

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Deadwood, S.D.

Susan H. Firestone,
On-Site Researcher
Deadwood, S.D.

March, 1975

### Quilcene-Brinnon, Washington

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George Munn
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Nellie Oen

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Quilcene, Washington

Carol J. Colfer,
On-Site Researcher
Quilcene, Washington

January 1, 1975

### Carbon County School District No. 2, Wyoming

We are indebted to a large number of community and school people--too many to name individually--for their help in gathering resource materials for this history, for willingly being interviewed about the memorable past, for introducing us to a number of obscure but important documents and memoirs and to living resource persons, and for reading and offering helpful suggestions and corrections to drafts of the study. Among those who deserve special mention are the central office and outlying school administrators, the school trustees, classroom teachers, school librarians, and the clerical staffs of Carbon County School District No. 2. The staff of the Carbon County Instructional Materials Center have been particularly helpful in preparing the photographic illustrations. We are also grateful for the assistance rendered by officials of the Carbon County and town governments, the State Department of Education, and the State Recreation Commission in Cheyenne, as well as the U.S. Forest Service and U.S. Department of Agriculture Soil Conservation Service in Saratoga. The staff of state and local libraries and museums also deserve special mention, at the Carbon County Library in Rawlins, at the Coe Memorial Library at the University of Wyoming in Laramie, at the State Library in Cheyenne, at the State Archives in Cheyenne, and at the Grand Encampment Museum in Encampment. Without their help and patience, many of the more remote sources in this history would have been very difficult to acquire. Finally, we want to thank Kareen Messerschmidt for her part in hosting many inter-OSR (On-Site Researcher) conferences and for reading and commenting on parts of the final draft.

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November, 1974